

# Configure and Troubleshoot CVP Network Transfer

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## Introduction

This document describes how to configure and troubleshoot Customer Voice Portal (CVP) Network Transfer.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

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

### Components Used

The information in this document is based on these software versions:

- PCCE Release 12.6
- UCCE Release 12.0

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

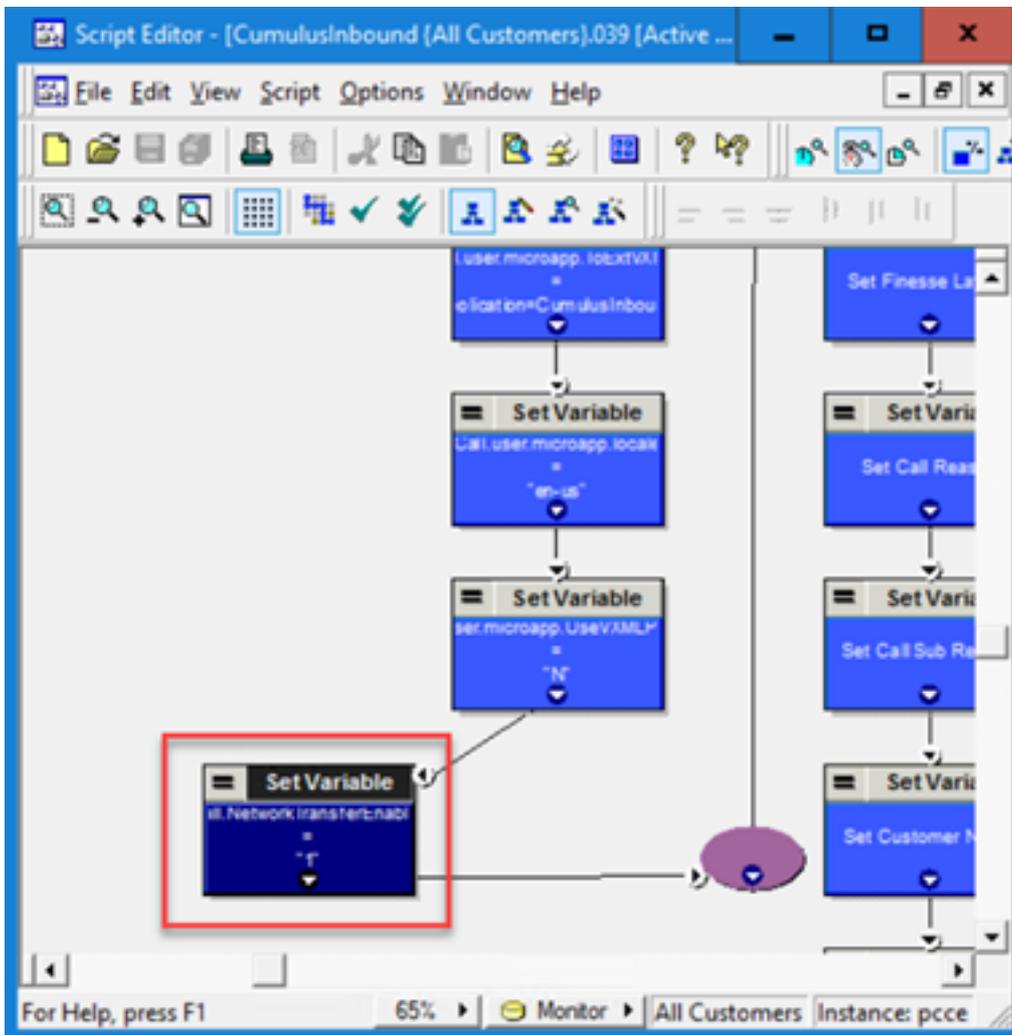
Network Transfer in CCE means that when an agent receives a call in a CVP comprehensive call flow and then transfers this call to another agent or another endpoint, Intelligent Contact Management (ICM) returns a label to the associated Voice Response Unit (VRU) routing client instead of the original transfer routing client. The original transfer routing client here means the CUCM since the transfer is originated from CUCM. If a call transfer comes from CUCM to ICM, CUCM is the original transfer routing client and the label must be returned to CUCM. However, if you have Network Transfer configured, the label is returned to the initial routing client which in this scenario is CVP.

## Configure

### PCCE and UCCE

NetworkTransferEnabled: This is a flag in the Unified ICME script, that if enabled, instructs the ICM to save the information about the initial routing client (routing client which sent the NewCall route request for example CVP).

In PCCE you only need to set this flag to **1** in the main script in a **Set Variable** node before the call is queued and before **Send to VRU** node.



## UCCE

NetworkTransferPreferred: This flag is checked on the CUCM PG configuration. If it is checked, then any route request from this routing client (where Unified ICM knows about the initial routing client) sends the route response to the initial routing client instead of the routing client which sent the route request.

The screenshot displays the Unified ICM configuration interface. On the left, a tree view shows a hierarchy: (1) PG, (2) Peripheral, and under Peripheral: CUCMPG, CUCMPG\_1 (highlighted), MRPG, and VRUPG. Below the tree are buttons for 'Add Peripheral', 'Delete', and 'Multiple...'. At the bottom left, it says 'ICM Instance: v12'.

The main configuration area is titled 'Logical Controller' and shows settings for Logical controller ID: \* 5001 and Physical controller ID: \* 5001. Fields include Name: \* CUCMPG, Client type: \* CUCM, Description: cucm, Primary CTI address: 10.201.225.6, and Secondary CTI address: 10.201.225.13. Reporting Interval is set to 30 Minute. Time Source options are 'Use Central Controller Time (Recommended)' (selected) and 'Use ACD Time'.

Below this is a tabbed interface with 'Peripheral' selected. It shows settings for Name: \* CUCMPG\_1, ID: \* 5001, Timeout threshold: \* 1500, Late threshold: \* 500, Timeout limit: \* 10, Default media routing domain: NONE, Default call type: NONE, Configuration parameters, Dialed Number/Label map: \* Do not use DN/Label map, Client type: \* IPCC / Enterprise Agent, Description, Network routing client, Network transfer preferred:  (highlighted with a red box), Congestion Treatment Mode: Use System Congestion Control, and Default Label.

## Considerations

- Network Transfer can be used to perform blind transfer only from agent1 to agent2 via CVP. In this case, CVP gets instruction from Unified ICM to pull the call back from agent1 and route it to either VXML GW (for IVR treatment) or to another destination (to agent2 as an example).
- Network Transfer cannot be used to perform the warm transfer or conference with CVP. The reason is because the call leg to agent1 needs to be active while the agent1 performs a consult/conference. CVP cannot pull the call back from agent1 during the warm transfer and/or conference.
- Do not enable the NetworkTransferEnable flag in Unified ICM script. If a caller would like to dial the same number regardless of blind transfer or warm transfer/conference.

## Verify

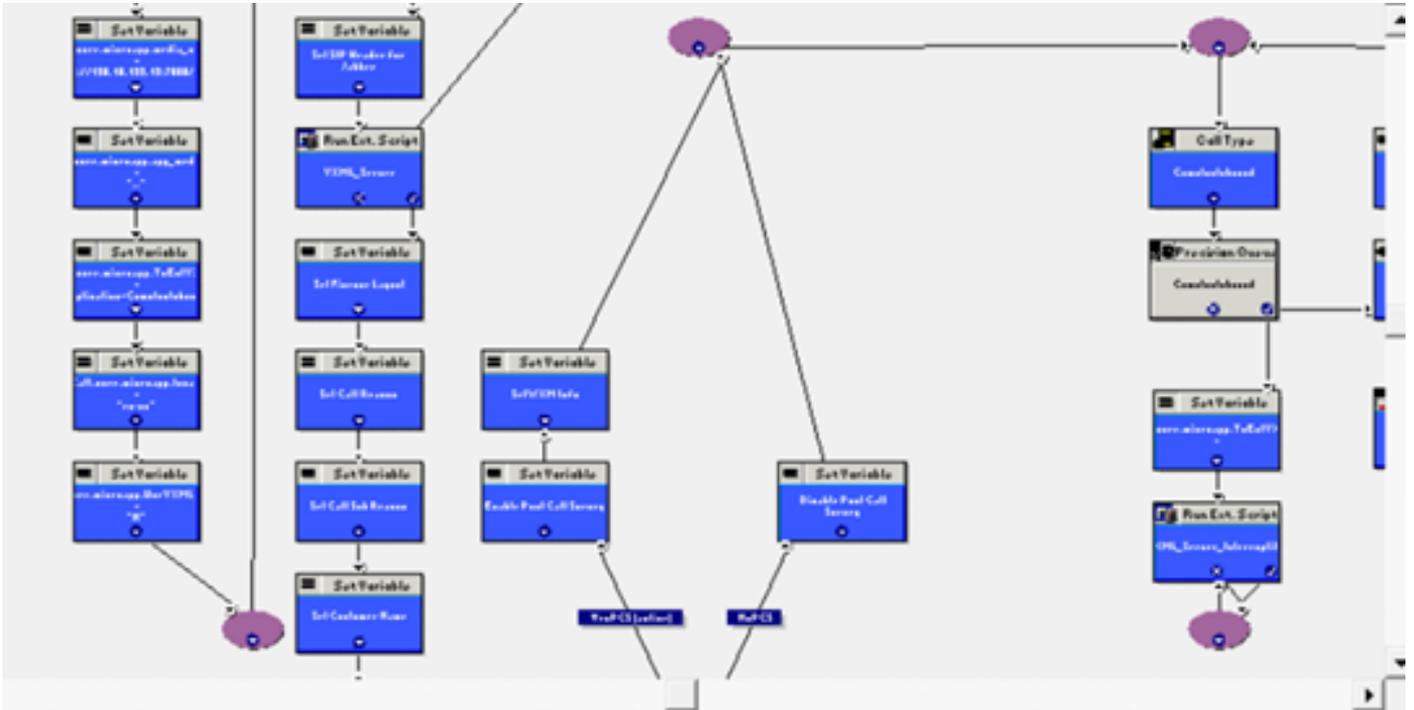
There is currently no verification procedure available for this configuration.

## Troubleshoot

Most of the issues related to network transfer can be analyzed with the CCE Router logs. Here is an example of the Router logs in a comprehensive call flow regular transfer and in a comprehensive call flow network transfer.

## Regular Transfer

This image shows a regular script without network transfer enable.



Here are the rtr logs:

RCID 5001 is CVP

RCID 5000 is CUCM

As shown in the image, the transfer label 888.. is sent to the RCID=5000, which is CUCM.

```
Test1: -----Regular Transfer call to Agent-----
12:56:47:987 ra-rtr Trace: (518 x 0 : 0 0) NewCall: CID=(153664,52231725), DN=6016, ANI=5125650756, CED=, RCID=5001, MRDID=1, CallAtVRU=1, OpCode=0,
12:56:47:987 ra-rtr Trace: (518 x 1139 : 0 0) TransferToVRU_VRUConnect: Label=7771111000, CorID=1139, VRUID=5000, RCID=5001 ECCPayloadID=1 InvokeID=4
12:56:48:034 ra-rtr Trace: (518 519 1139 : 0 0) RequestInstr: CID=(153664,52231725), CallState=1

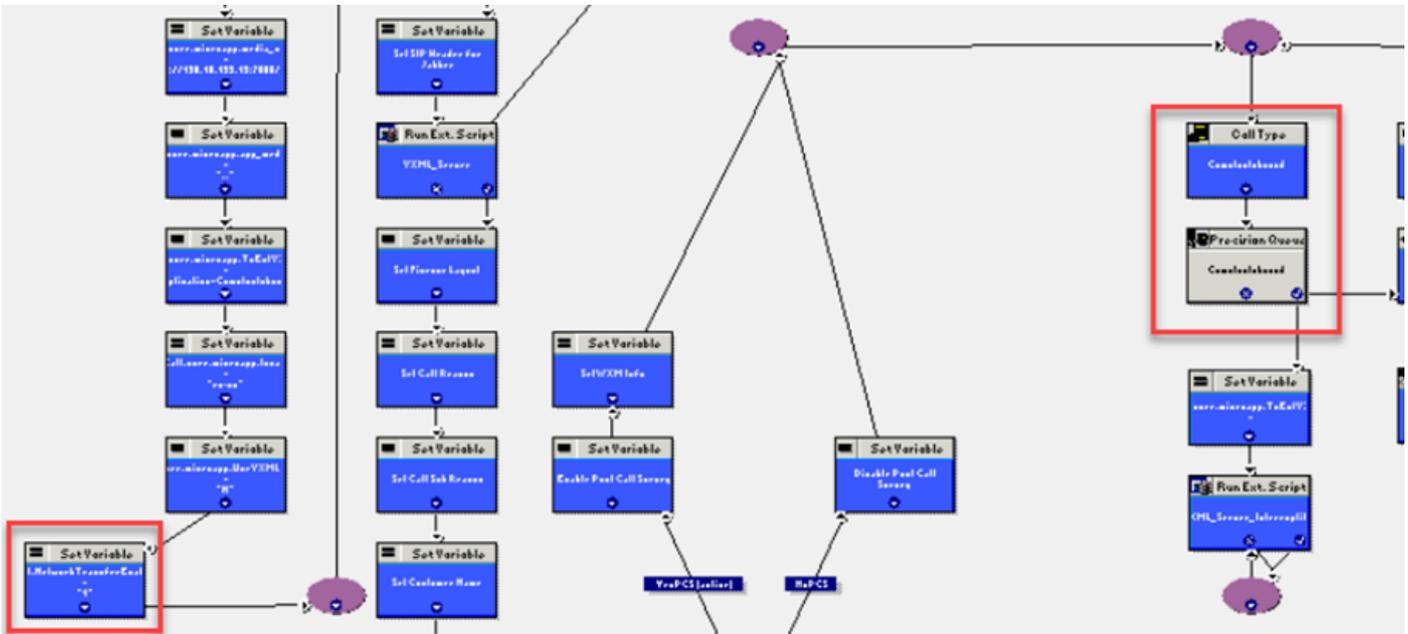
-----Agent1 Answers the call
12:57:07:943 ra-rtr Trace: (518 519 1139 : 0 0) DeviceTargetPreCall_V14: CID=(153664,52231725), PerID=5000, PQID=5022, StepOrder=1, AGSTID=5174 Netwo
12:57:07:943 ra-rtr Trace: (518 519 1139 : 0 0) VRUConnect: CID=(153664,52231725), EventSelect=0x68, ServiceType=1, RCID=5001, ECCPayloadID=1 InvokeI
12:57:15:788 ra-rtr Trace: (518 519 1139 : 0 0) Deleting Dialog.

-----Transfer call to 6023 and agent 2 answered the call-----
12:58:24:172 ra-rtr Trace: (65537 x 0 : 0 0) NewCall: CID=(153664,52231725), DN=6023, ANI=5125650756, CED=6023, RCID=5000, MRDID=1, CallAtVRU=0, OpCo
12:58:24:172 ra-rtr Trace: (65537 x 1142 : 0 0) TransferToVRU_Connect: Label=8881111000, CorID=1142, VRUID=5000, RCID=5000 ECCPayloadID=1 invokeID=43
12:58:24:265 ra-rtr Trace: CallServiceInfoInd from_peripheral_ID=5000, InvokeID=438
12:58:24:281 ra-rtr Trace: (65537 527 1142 : 0 0) RequestInstr: CID=(153664,52231725), CallState=1

12:58:24:281 ra-rtr Trace: (527 527 1143 : 0 0) TransferToVRU_VRUConnect: Label=7771111000, CorID=1143, VRUID=5000, RCID=5001 ECCPayloadID=1 InvokeID
12:58:24:312 ra-rtr Trace: (527 528 1143 : 0 0) RequestInstr: CID=(153664,52231725), CallState=1
12:58:35:016 ra-rtr Trace: (527 528 1143 : 0 0) DeviceTargetPreCall_V14: CID=(153664,52231725), PerID=5000, PQID=5022, StepOrder=1, AGSTID=5172 Netwo
12:58:35:016 ra-rtr Trace: (527 528 1143 : 0 0) VRUConnect: CID=(153664,52231725), EventSelect=0x68, ServiceType=1, RCID=5001, ECCPayloadID=1 InvokeI
12:58:37:439 ra-rtr Trace: (527 528 1143 : 0 0) Deleting Dialog.
```

## Network Transfer

This image shows a regular script with network transfer enabled.



Here are the rtr logs:

RCID 5001 is CVP

RCID 5000 is CUCM

As shown in the image, the transfer label 777.. is sent to the the RCID=5001, which is CVP. CVP is the intial routing client.

```

44 Test2: -----Network Transfer to Agent
45 Variable set only in main script
46
47 13:09:28:687 ra-rtr Trace: (574 x 0 : 0 0) NewCall: CID=(153664,52231769), DN=6016, ANI=5125650756, CED=, RCID=5001 MRDID=1, CallAtVRU=1, OpCode=0,
48 13:09:28:687 ra-rtr Trace: (574 x 0 : 0 0) Correlation id for dialog is (1150).
49 13:09:28:687 ra-rtr Trace: (574 x 1150 : 0 0) TransferToVRU_VRUConnect: Label=7771111000, CorID=1150, VRUID=5000, RCID=5001 ECCPayloadID=1 InvokeID=4
50 13:09:28:687 ra-rtr Trace: (574 x 1150 : 0 0) TransferConnect sent. Dialog pending.
51 13:09:28:734 ra-rtr Trace: (574 575 1150 : 0 0) Dialog sending VRUQueueService to VRU (serv=-1, rt=0)
52 13:09:28:734 ra-rtr Trace: (574 575 1150 : 0 0) RequestInstr: CID=(153664,52231769), CallState=1
53 13:09:28:734 ra-rtr Trace: (574 575 1150 : 0 0) Dialog resuming (Request Instruction received.) status (0)
54 13:09:28:734 ra-rtr Trace: (574 575 1150 : 0 0) Runscript sent. ECCPayloadID = 1 Dialog pending.
55 13:09:47:331 ra-rtr Trace: (574 575 1150 : 0 0) Dialog handling script resp
56 13:09:47:331 ra-rtr Trace: (574 575 1150 : 0 0) Dialog resuming (Script response received (success).) status (0)
57
58 -----Agent1 Answers the call
59
60
61 13:09:47:331 ra-rtr Trace: (574 575 1150 : 0 0) DeviceTargetPreCall V14: CID=(153664,52231769), PerID=5000, PQID=5022, StepOrder=1, AGSTID=5174 Netwo
62 13:09:47:331 ra-rtr Trace: (574 575 1150 : 0 0) Dialog sending release call to VRU
63 13:09:47:331 ra-rtr Trace: (574 575 1150 : 0 0) VRUConnect: CID=(153664,52231769), EventSelect=0x68, ServiceType=1, RCID=5001, ECCPayloadID=1 InvokeI
64 13:09:47:347 ra-rtr Trace: For message (9) from routing client CVP_PG_1A (ID 5001) could not find dialog id (575).
65 13:09:49:597 ra-rtr Trace: (574 575 1150 : 0 0) Dialog got event report (4) for Requery labels (index= 0). requery_status 0
66 13:09:49:597 ra-rtr Trace: (574 575 1150 : 0 0) Dialog resuming (CALL_EVENT_REPORT.) status (0)
67 13:09:49:597 ra-rtr Trace: (574 575 1150 : 0 0) Deleting Dialog.
68 13:09:50:831 ra-rtr Trace: (569 570 1149 : 0 0) Dialog handling script resp
69 13:09:50:831 ra-rtr Trace: (569 570 1149 : 0 0) Dialog resuming (Script response received (success).) status (0)
70 13:09:50:831 ra-rtr Trace: (569 570 1149 : 0 0) Runscript sent. ECCPayloadID = 1 Dialog pending.
71
72 -----Transfer call to 6023 and agent 2 answered the call-----
73
74 13:10:36:588 ra-rtr Trace: (65538 x 0 : 0 0) NewCall: CID=(153664,52231769), DN=6023, ANI=5125650756, CED=6023, RCID=5000, MRDID=1, CallAtVRU=0, OpCo
75 13:10:36:588 ra-rtr Trace: (65538 x 0 : 0 0) Correlation id for dialog is (1151).
76 13:10:36:588 ra-rtr Trace: (65538 x 1151 : 0 0) TransferToVRU_VRUConnect: Label=7771111000, CorID=1151, VRUID=5000, RCID=5001 ECCPayloadID=1 InvokeID
77 13:10:36:588 ra-rtr Trace: (65538 x 1151 : 0 0) Transferconnect sent. Dialog pending.
78 13:10:36:682 ra-rtr Trace: (65538 578 1151 : 0 0) Dialog sending VRUQueueService to VRU (serv=-1, rt=0)
79 13:10:36:682 ra-rtr Trace: (65538 578 1151 : 0 0) RequestInstr: CID=(153664,52231769), CallState=1
80 13:10:36:682 ra-rtr Trace: (65538 578 1151 : 0 0) Dialog resuming (Request Instruction received.) status (0)
81 13:10:36:682 ra-rtr Trace: (65538 578 1151 : 0 0) Runscript sent. ECCPayloadID = 1 Dialog pending.
82

```

## Related Information

- [Network Transfer - Community](#)
- [CVP Config Guide](#)
- [Technical Support & Documentation - Cisco Systems](#)