

Update the Network Trunk Group Configuration via UPDATE SQL Queries in the PCCE Environment

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Introduction

This document describes how to update the Network Trunk Group configuration using the UPDATE SQL queries in the PCCE environment.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Packaged Contact Center Enterprises (PCCE)
- Microsoft SQL

Components Used

The information in this document is based on these components:

- Rogger
- Peripheral gateway PG-VRU
- Admin Workstation
- Historical Database AW-HDS

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.

Problem

In a very corner scenario in PCCE, while you import the base configuration the expected configuration may not properly import or imported with conflict in the Logical controller/Peripheral ID mapping to the respective/specific configuration. This could lead to inappropriate functionalities in the system/features.

Reference [CSCvg09448](#) , [CSCvc50016](#) and [CSCvf40204](#) .

There is a limitation in the PCCE where you can't perform the configuration via Configuration Manager utility or the CCEADMIN page in order to correct the incorrect information.

Example

Consider the Logical Controller, Network Trunk Group and Trunk Group table as shown in the image.

The screenshot shows a SQL query tool with three tables displayed below the query editor. The query editor contains the following SQL:

```
select * from Logical_Interface_Controller
select * from Network_Trunk_Group
select * from t_Trunk_Group
```

The first table, Logical_Interface_Controller, has the following data:

	LogicalControllerID	EnterpriseName	LogicalControllerType	Client Type	ConfigParam	Description	Deleted
1	5000	CUCM	2	30	NULL	NULL	N
2	5001	CVP	2	13	NULL	NULL	N
3	5002	MR	2	47	NULL	NULL	N

The second table, Network_Trunk_Group, has the following data:

	NetworkTrunkGroupID	EnterpriseName	LogicalControllerID	Description	ChangeStamp	DateTimeStamp
1	5000	GENERIC	5000	NULL	4	2019-01-04 15:47:08

The third table, t_Trunk_Group, has the following data:

	TrunkGroupID	EnterpriseName	PeripheralID	PeripheralNumber	PeripheralName	NetworkTrunkGroupID
1	5002	CVP_1.CVP_1.100	5001	100	CVP_1.100	5000
2	5003	CVP_1.CVP_1.200	5001	200	CVP_1.200	5000
3	5004	CVP_1.CVP_1.300	5001	300	CVP_1.300	5000

Network Trunk group imported with LogicalControllerID as 5000 (CUCM) instead of 5001 (CVP). Due to the same the respective NWTG and TG IDs were not known by the VRU PG and Network_Trunk_Group_Half_Hour and Trunk_Group_Half_Hour tables interval data not updated to the HDS. This affects the cuic ivr port performance report which returns with a blank report.

Solution

As you consider the limitation of the tools in PCCE to update the configuration, it is required to update the configuration using the UPDATE SQL queries directly to the Logger A & B databases and sync with AWDB.

Procedure

1. Take Full SQL backup from the Logger A & B and AWDB A & B for safety precaution.

<https://www.youtube.com/watch?v=VvaKmuJEE7E>

2. Change the Logger A & B services startup as Manual in Service Controller and stop the service.

3. Change the Distributor A & B services startup as Manual in Service Controller and stop the service.

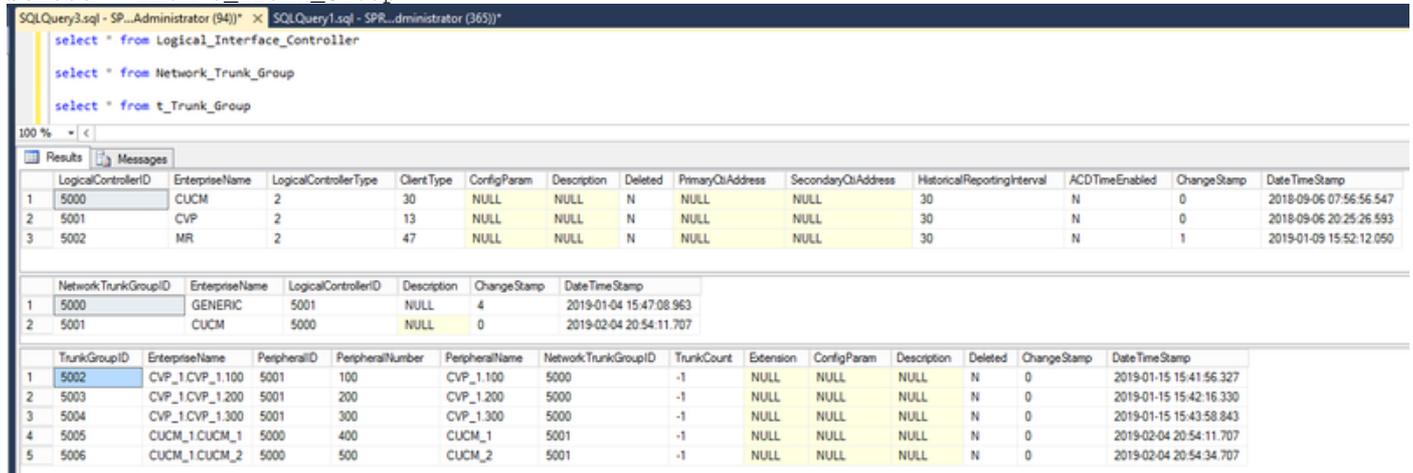


4. Execute this SQL queries against the Logger A DB and take a screenshot of the output.

```
select * from Logical_Interface_Controller
```

```
select * from Network_Trunk_Group
```

```
select * from t_Trunk_Group
```



Note: PCCE has by default with one Logical Controller in the base config. (Ensure for UCCE)

5. Run the subquery in the Logger A & B DB and ensure that the result returns with one value.

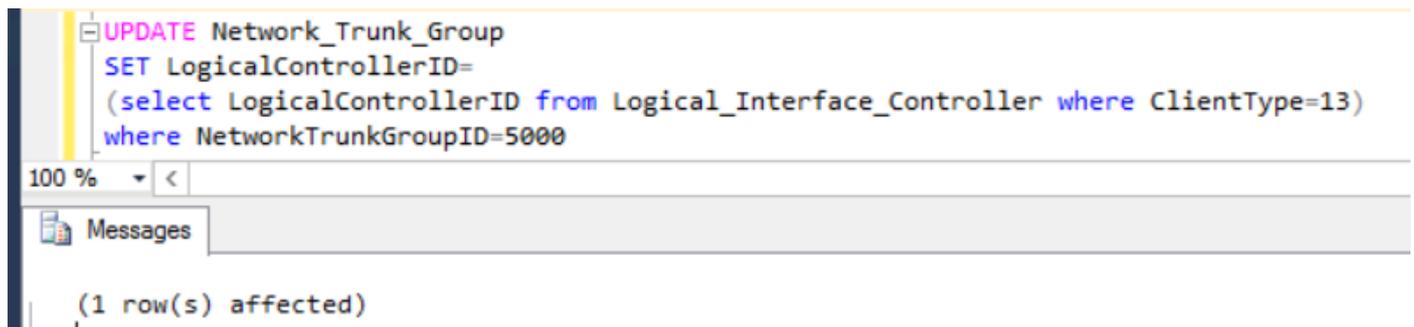
```
select LogicalControllerID from Logical_Interface_Controller where ClientType=13
```

```
select LogicalControllerID from Logical_Interface_Controller where ClientType=13
```



6. Execute this UPDATE SQL query against the Logger A DB and ensure the query executed successfully.

```
UPDATE Network_Trunk_Group SET LogicalControllerID=(select LogicalControllerID from
Logical_Interface_Controller where ClientType=13) where NetworkTrunkGroupID=5000
```



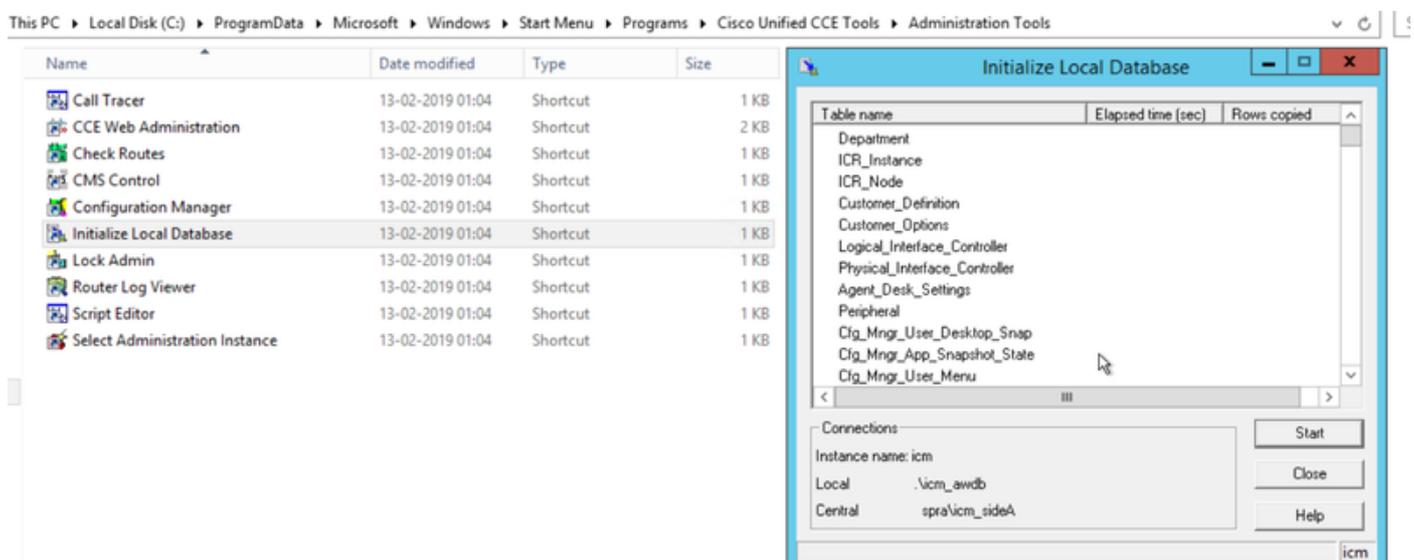
7. Rerun the select * from Network_Trunk_Group and confirm the Logical controller ID updated.
8. Execute the below UPDATE SQL query against the Logger B DB and ensure the query executed successfully.

```
UPDATE Network_Trunk_Group SET LogicalControllerID=(select LogicalControllerID from
Logical_Interface_Controller where ClientType=13) where NetworkTrunkGroupID=5000
```

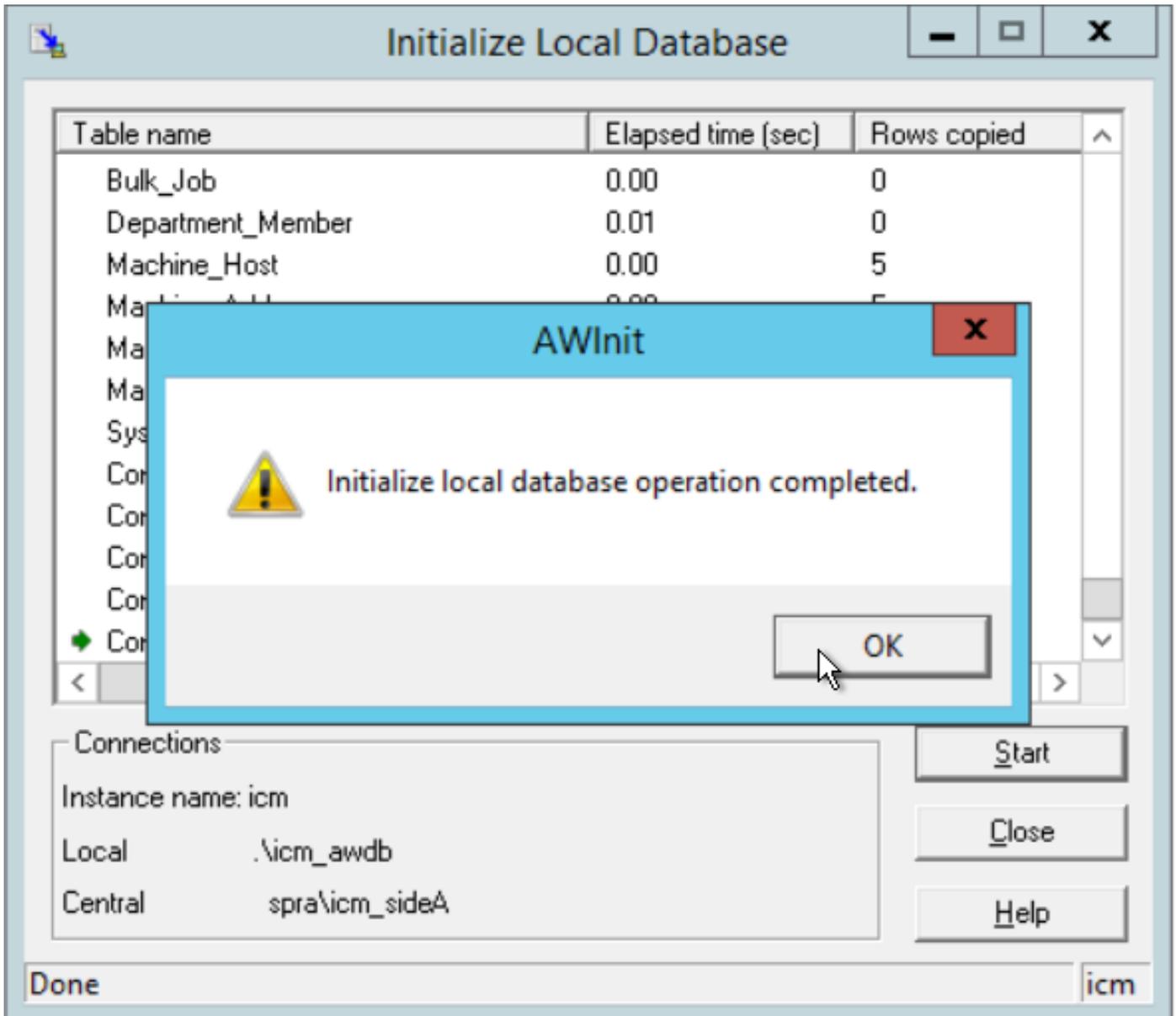
9. Rerun the select * from Network_Trunk_Group and confirm the Logical controller ID updated.
10. Start the Logger A and B services in the Service Controller and update the startup as Automatic.
11. Start the Distributor A service in the Service Controller and update the startup as Automatic.

	Cisco ICM icm Distributor	Running	Automatic
	Cisco ICM icm LoggerB	Running	Automatic

12. In the AWHDS server, Go to C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Cisco Unified CCE Tools\Administration Tools.
13. Run the Initialize Local Database utility.



14. Click **Start** as shown in the image, and then **Yes** for the warning message and wait for the result.



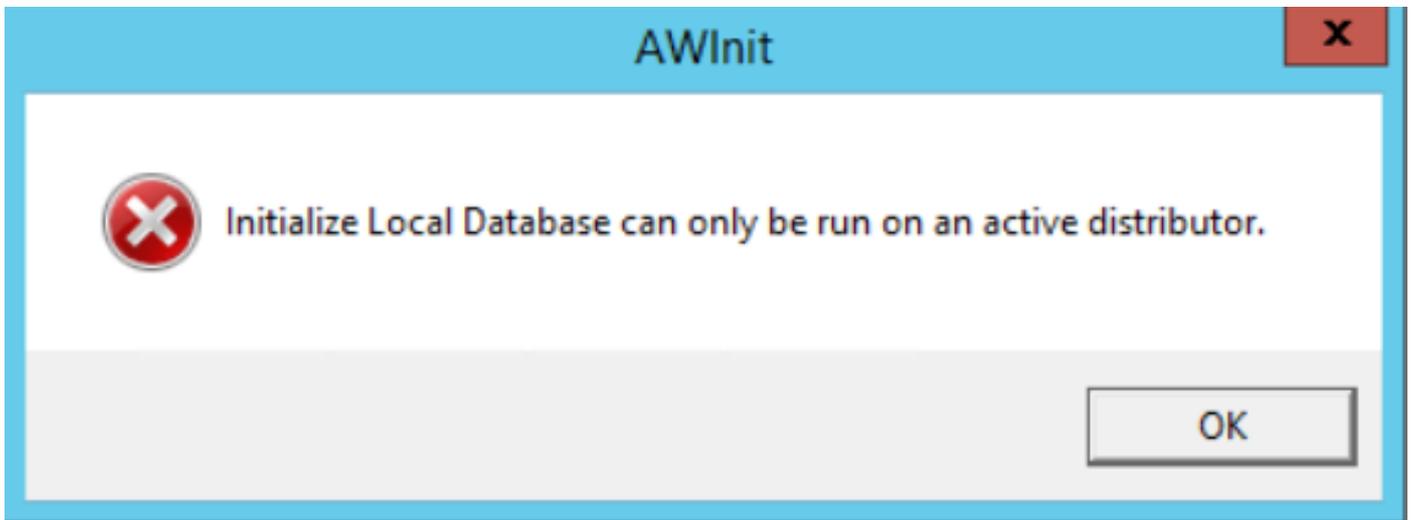
15. Execute this SQL queries against the AWDB A and ensure the changes updated.

```
select * from Logical_Interface_Controller
```

```
select * from Network_Trunk_Group
```

```
select * from t_Trunk_Group
```

Note: PCCE has by default with one AWSITE, Init LocalDB can be performed only on Active AW or this error message is received while you perform the Init LocalDB in the inactive side



16. In order to make the Distributor B as the active side, Stop the Distributor A service.
17. Start the Distributor B service in the Service Controller and update the startup as Automatic.
18. In the AWHDS Server, navigate to **C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Cisco Unified CCE Tools\Administration Tools**
19. Run the Initialize Local Database utility.
20. Click **Start** and then **Yes** for the warning message and wait until the result.
21. Execute this SQL queries against the AWDB B and ensure the changes updated.

```
select * from Logical_Interface_Controller
```

```
select * from Network_Trunk_Group
```

```
select * from t_Trunk_Group
```

22. Start the Distributor A service in the Service Controller.

Note: Most of the configuration change requests performed via the Router, but configurations on SQL are not directly updated. It syncs to the Router memory on the next ConfigUpdate Interval. You need to wait until the next interval or perform the step 23 (No Impact).

23. Execute the command `get_config` in the RTTEST and get the updated information to the router memory.

```
PS C:\Users\Administrator.NAG> rttest /cust icm /node RouterA
RTTEST Release 11.6.1.0 , Build 00808
rttest: get_config
rttest: █
```

23. Navigate to the Peripheral Gateway A and B and connect to the OPCTEST of VRU PG
24. Execute the commands

list_network_trunk_group <NetworkTrunkGroupID> (5000) and

list_trunk_group <VRU Peripheral ID> (5001)

```
PS C:\Users\Administrator.NAG> opctest /cust icm /node pg2a
13:55:59 Trace: EMT Creating Mutex Global\IMTConnect_DisconnectLock
OPCTEST Release 11.6.1.0 , Build 00808
opctest: list_network_trunk_group 5000

OPC Current Time: 02/08 08:26:08
OPC Local Time: 02/08 13:56:08 (+5.5 hr)
NetworkTGID PeripheralID LastHHU #TrunkGrps PeripheralCount Shared Tracing
5000 65535 02/07 18:00:00 3 1 0 0

opctest: list_trunk_groups 5001

OPC Current Time: 02/08 08:26:13
OPC Local Time: 02/08 13:56:13 (+5.5 hr)
Perph# SkTargetID NTGSKTargetID NumTrunks LastHHU Tracing Ext ConfigParam
300 5004 5000 -1 02/07 18:00:00 0
200 5003 5000 -1 02/07 18:00:00 0
100 5002 5000 -1 02/07 18:00:00 0
```

26. Ensure that you get the updated configuration reflected in the VRU PG OPC as shown here.

27. Post the Logger and AWDB update and OPCTEST result, the necessary interval updates reflects in the HDS DB. (After 30 Mins).

28. Run this SQL queries and ensure the interval data updated.

```
select * from t_Trunk_Group_Half_Hour where DateTime>'2019-02-14'
```

```
select * from Network_Trunk_Group_Half_Hour where DateTime>'2019-02-14'
```

```
select * from t_Trunk_Group_Half_Hour where DateTime>'2019-02-14' and TrunkGroupID=5002
select * from Network_Trunk_Group_Half_Hour where DateTime>'2019-02-14'
```

Date Time	TrunkGroupID	TimeZone	CallsAbandonedToHalf	CallsInToHalf	TrunksInService	CallsOutToHalf	AllTrunksBusyToHalf	InService Time
2019-02-14 00:30:00	5002	-330	0	0	6144	0	0	11059200
2019-02-14 01:00:00	5002	-330	0	0	6144	0	0	11071488
2019-02-14 01:30:00	5002	-330	0	0	6144	0	0	11053056
2019-02-14 02:00:00	5002	-330	0	0	6144	0	0	11059200
2019-02-14 02:30:00	5002	-330	0	0	6144	0	0	11059200
2019-02-14 03:00:00	5002	-330	0	0	6144	0	0	11059200
2019-02-14 03:30:00	5002	-330	0	0	6144	0	0	11059200
2019-02-14 04:00:00	5002	-330	0	0	6144	0	0	11065344
2019-02-14 04:30:00	5002	-330	0	0	6144	0	0	11059200
2019-02-14 05:00:00	5002	-330	0	0	6144	0	0	11059200

NetworkTrunkGroupID	Date Time	TimeZone	AllTrunksBusyToHalf	CallsAbandonedToHalf	CallsInToHalf	CallsOutToHalf	InService Time ToHalf
5000	2019-02-14 00:30:00	-330	0	0	0	0	34437600
5000	2019-02-14 01:00:00	-330	0	0	0	0	34475864
5000	2019-02-14 01:30:00	-330	0	0	0	0	34418468
5000	2019-02-14 02:00:00	-330	0	0	0	0	34437600
5000	2019-02-14 02:30:00	-330	0	0	0	0	34437600
5000	2019-02-14 03:00:00	-330	0	0	0	0	34437600
5000	2019-02-14 03:30:00	-330	0	0	0	0	34437600
5000	2019-02-14 04:00:00	-330	0	0	0	0	34456732
5000	2019-02-14 04:30:00	-330	0	0	0	0	34437600
5000	2019-02-14 05:00:00	-330	0	0	0	0	34437600

Rollback

Accessing the Logger Database directly and using SQL UPDATE commands are very critical and sensitive. Inappropriate usage of the steps could lead to loss of data, data correction etc. It is highly recommended to use the above steps only to the specific scenario with the recommendation of the Cisco TAC Engineer.

Since you have collected the SQL database backup (FULL) before proceeding with the steps, you can use to backup files to restore the database to overcome the uncertainty.

https://www.youtube.com/watch?v=TWQe_CxK9Ik