

# IPCC: Troubleshoot Mutex Lock Errors

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## Introduction

### Prerequisites

Requirements

Components Used

Conventions

### Problem

**Solution 1 – For the DC Directory Environment**

**Solution 2 – For the Active Directory Environment**

**Error: Cannot acquire ClusterMutex**

### Solution

**NetPro Discussion Forums – Featured Conversations**

### Related Information

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## Introduction

In a Cisco Unified Contact Center Express environment, a user cannot change configurations in the trigger information section of the Java Telephony Application Programming Interface (JTAPI) Triggers on the Cisco Customer Response Solution (CRS) Admin. In the attempt to change the application in the trigger information section of the JTAPI Triggers, this error message appears in the MADM log:

```
java.lang.InterruptedException: User (CRSuser) attempt to acquire mutex lock for the
purpose of (Cluster Mutex acquired by JTAPI Provider - Update.),
but could not acquirelock within (3000) milisecond.
Please try after few minutes
```

This document describes how to troubleshoot these mutex lock errors.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco CRS
- DC Directory Administration
- Active Directory

### Components Used

This document is not restricted to specific software and hardware versions.

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, make sure that you understand the potential impact of any command.

## Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

## Problem

When a user attempts to update the JTAPI Triggers using the Cisco CRS Application Admin, this error message appears:

```
java.lang.InterruptedException: User (CRSuser)
attempt to acquire mutex lock for the
purpose of (Cluster Mutex acquired by JTAPI Provider - Update.),
but could not acquire lock within (3000) milisecond.
Please try after few minutes
```

This is a known defect when a lock entry is missing in the Lightweight Directory Access Protocol (LDAP). This issue is documented by Cisco bug ID CSCsd13553 ( registered customers only ) .

## Solution 1 – For the DC Directory Environment

If this is a DC Directory environment, use this solution to solve the problem.

**Note:** You need to log into the DC Directory Manager as a Directory Manager in order to make the necessary changes.

1. In the DC Directory LDAP, choose **CCN Apps > clusters > [profile] > Locks > Locks.00000000** and confirm that these mutex lock entries are named as this list shows:

```
lockApplicant?empty
lockOwner?empty
lockUsage?empty,
lockUserInfo?empty
lockUserTimestamp?empty
```

2. If any of the entries in step 1 are missing the ?empty suffix in their name, then they need to be renamed to exactly match the list in step 1.

**Note:** You can ignore the lockExpiration entry. It does not need the ?empty suffix in the name.

3. If any of the lock\_\_\_\_?empty entries are missing completely, you must add them manually. In order to add the entry, complete these steps:

**Note:** The lockApplicant?empty value is used for illustration purposes only.

- a. Right-click on **Locks.00000000** and select **New > ciscoCCNocConfigInfoCES**.
  - b. Enter the name as **lockApplicant?empty** and press **Enter**.
  - c. In the next window, click **Add** and enter **x** in the Enter String value box. Then click **OK**.
  - d. Click **OK** again.
4. Once you have confirmed that all of these entries are named properly, confirm that these entries have the value configured as **x** (lowercase x):

```
lockApplicant?empty
lockOwner?empty
lockUsage?empty,
lockUserInfo?empty
lockUserTimestamp?empty
```

**Note:** Ignore the `lockExpiration` entry in this step. Its value should *not* be **x**.

If any of these lock entry values is not configured as **x**, then configure them as **x**.

## Solution 2 – For the Active Directory Environment

If you have an Active Directory (AD) integration, you need to use **ADSI Edit** in order to change the lock parameters. Complete these steps in order to resolve the issue in an AD environment:

1. On the AD server, you can browse your directory schema when you open the **Active Directory Services Interface (ADSI)** edit utility. Then drill down to `dc=xxxxxx,dc=com,ou=Cisco,ou=CCNApps,ou=clusters,ou= <profilename>,ou=Locks,ou=Locks.000000000`.
2. Check that the lock entries are named as this list shows:

```
lockApplicant?empty  
lockOwner?empty  
lockUsage?empty,  
lockUserInfo?empty  
lockUserTimestamp?empty
```

3. If any of the entries in step 2 are missing the `?empty` suffix in their name, then they need to be renamed to exactly match the list in step 2.
4. If any of the `lock____?empty` entries are missing completely, then you need to add them manually. Complete these steps in order to add the entry:

**Note:** The `lockApplicant?empty` value is used for illustration purposes only.

- a. Right-click on **Locks.00000000** and select **New > Object > ciscoCCNocConfigInfoCES**.
  - b. Enter the name as **lockApplicant?empty** and press **Next**.
  - c. In the next window, click **More Attributes**.
  - d. From the Select a Property to View pull-down menu, select **ciscoCCNatConfigInfoCESValue**.
  - e. In the Edit Attribute: box, enter **x** and click **Add**.
  - f. Click **OK**.
  - g. Click **Finish**.
5. Once you have confirmed that all entries are named properly, confirm that these entries have the value configured as **x** (lowercase x):

```
lockApplicant?empty  
lockOwner?empty  
lockUsage?empty,  
lockUserInfo?empty  
lockUserTimestamp?empty
```

**Note:** Ignore the `lockExpiration` entry in this step. Its value should *not* be **x**.

If any of these lock entry values are not configured as **x**, then complete these steps in order to configure them as **x**:

- a. Right-click on **lockApplicant?empty** and choose **Properties**.

- Note:** The `lockApplicant?empty` value is used for illustration purposes only.
- b. From the Attributes: box, select **ciscoCCNatConfigInfoCESValue** and click **Edit**.
  - c. Highlight the existing entry in the Values: box and click **Remove** (skip if none are present).
  - d. In the Value to add: box, type **x** and click **Add**. Then click **OK**.
  - e. Click **Apply** and then **OK**.

# Error: Cannot acquire ClusterMutex

When the user sets up call wrap up time for the agents in the Customer Response Solutions Administration application, this error message appears:

```
Can not acquire ClusterMutex; nested exception is: com.cisco.config.ConfigException:
UnmarshalException; nested exception is: javax.xml.bind.UnmarshalException: Content is not
allowed in prolog. - with linked exception: [org.xml.sax.SAXParseException: Content is not
allowed in prolog.]
```

## Solution

Complete these steps in order to resolve this issue:

1. Go to the **C:\program files\wfavvid\ClusterData\Default\** folder on the CRS server.
2. Rename the **com.cisco.crs.cluster.config.LockConfig** folder to **com.cisco.crs.cluster.config.LockConfig.bak**.
3. Restart Node Manager.

If you do not wish to restart Node Manager, here is another way of clearing MutexLocks:

1. Click **Start** and type **CET**.
2. Choose **No** on popup message.
3. Find and click **com.cisco.crs.cluster.config.LockConfig** in the list located on the left.
4. Double-click the one record located on the right.
5. Select the **com.cisco.crs.cluster.config.LockConfig** tab located at the top.
6. Clear any fields that are not empty.

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Networking Professionals Connection is a forum for networking professionals to share questions, suggestions, and information about networking solutions, products, and technologies. The featured links are some of the most recent conversations available in this technology.

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## Related Information

- **Voice and Unified Communications Product Support**
- **Cisco Unified Contact Center Express Support**
- **Technical Support & Documentation – Cisco Systems**

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