Procedure to Recover Subversion Sync in CPS

Contents

Introduction

This document describes the procedure to recover subversion (SVN) sync in Cisco Policy Suite (CPS).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Linux
- CPS

  Note: Cisco recommends that you must have privilege root access to CPS CLI.

Components Used

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

- CPS 20.2
- Unified Computing System (UCS)-B

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

Apache SVN is the version creation and revision control system used within CPS. It maintains all

the CPS policy configurations and has repositories in which files can be created, updated, and deleted. SVN maintains the file difference each time any change is made to a file on the server and for each change it generates a revision number.

In general, most interactions with SVN are performed via Policy Builder (PB).

In other words, CPS stores the policy configuration data by the use of SVN, or subversion, in an SVN database. That provides a Graphical User Interface (GUI) to view and edit the SVN database (DB) called Policy Builder (PB) that connects to the pcrfclient/Operation and Maintenance (OAM) virtual machine via an external interface, the Virtual IP (VIP), and the Policy Director (PD).

The configuration data in the SVN DB of both the pcrfclients must be in sync at any point in time.

CPS consists of active and standby high availability (HA) model deployment of pcrfclient nodes, where one node runs as active and the other node runs as standby.

Problem

It is possible that in some situations, the SVN between pcrfclient nodes in a CPS goes out of sync and then it is required to make them in sync.

In some cases, mostly post policy publish, at the time of arbitervip switchover or even if the SVN server is not reachable, then SVN locks get created on the destination repository.

Then SVN sync goes out of date and these can be seen in **/var/log/httpd/svnsync.log** in impacted pcrfclient. When these locks are created, the CPS diagnostic output shows you the SVN sync error. Run this command from either Cluster Manager or pcrfclient in order to check the SVN sync status.

```
[root@installer ~]# diagnostics.sh --svn
CPS Diagnostics HA Multi-Node Environment
---------------------------
Checking svn sync status between pcrfclient01 & 02...
svn is not sync between pcrfclient01 & pcrfclient02...[FAIL]
Corrective Action(s): Run ssh pcrfclient01 /var/qps/bin/support/recover_svn_sync.sh
```

Procedure to Recover SVN Sync between pcrfclient Nodes

Approach 1

This approach is used when there is no SVN lock created.

Step 1. Log in to the respective pcrfclient node as shown in diagnostics and run this command to sync SVN between active and standby pcrfclient nodes.

```
/var/qps/bin/support/recover_svn_sync.sh
```
Command output if SVN sync is successful:

```
[root@dc1-pcrfclient01 ~]# /var/qps/bin/support/recover_svn_sync.sh
```

```
===============================================================
[Thu Aug 25 09:10:44 UTC 2022] [INFO] /var/qps/bin/support/recover_svn_sync.sh script is running
from console
-----sync betweeen pcrfclient01 & pcrfclient02 -------------------
[Thu Aug 25 09:10:47 UTC 2022] [INFO] Doing SVN sync between pcrfclient01 and pcrfclient02...
[Thu Aug 25 09:11:06 UTC 2022] [INFO] SVN are already in sync between pcrfclient01 and
pcrfclient02
[Thu Aug 25 09:11:07 UTC 2022] [INFO] SVN UUID are matched between pcrfclient01 and pcrfclient02
[Thu Aug 25 09:11:07 UTC 2022] [INFO] SVN sync completed successfully for pcrfclient01 &
pcrfclient02
[root@dc1-pcrfclient01 ~]#
```

If this command cannot sync SVN and throws this error related to the SVN lock in the destination or mirror repository, then go for Approach 2. which involves SVN steal lock.


```
svnsync: E000022: Couldn't get lock on destination repos after 10 attempts
[Fri Aug 12 12:47:04 IST 2022] [ERROR] SVN sync failed for pcrfclient01 & pcrfclient02
```

Step 2. Run this command from either Cluster Manager or pcrfclient, in order to verify the SVN sync status.

```
[root@installer ~]# diagnostics.sh --svn
CPS Diagnostics HA Multi-Node Environment
---------------------------
Checking svn sync status between pcrfclient01 & pcrfclient02...[PASS]
[root@installer ~]#
```

Approach 2

You can use this approach if the SVN lock is created in the destination or mirror repository.

Step 1. Log in to the respective pcrfclient node as shown in diagnostics and run this command.

```
Command syntax:
svnsync synchronize file:///var/svn/repos-mirror http://svn.example.com/repos

Sample command:
/usr/bin/ssh -k qns@pcrfclient01 -t '' '/usr/bin/svnsync info http://pcrfclient02/repos-proxy-
sync'

[root@dc1-pcrfclient01 ~]# /usr/bin/ssh -k qns@pcrfclient01 -t '' '/usr/bin/svnsync info
http://pcrfclient02/repos-proxy-sync'
Source URL: http://pcrfclient01/repos-proxy-sync
Source Repository UUID: f1937c9d-1688-463a-9d4e-db944d9aafb1
Last Merged Revision: 170
[root@dc1-pcrfclient01 ~]#
```

2. Run this command to steal the SVN lock on the destination or mirror repository.

```
/usr/bin/ssh -k qns@pcrfclient01 -t '' '/usr/bin/svnsync sync --steal-lock
http://pcrfclient02/repos-proxy-sync'
```

> **Note**: This command causes svnsync to steal, as necessary, the lock which it uses on the destination or mirror repository to ensure exclusive repository access. This option must only be used when a lock exists in the destination or mirror repository and is known to be stale—that is, when you are certain that there are no other svnsync processes that access the repository.

3. Run this command to sync SVN between active and standby pcrfclient nodes.

```
[root@dc1-pcrfclient01 ~]# /var/qps/bin/support/recover_svn_sync.sh
================================================================
[Thu Aug 25 09:10:44 UTC 2022] [INFO] /var/qps/bin/support/recover_svn_sync.sh script is running
from console
-----sync betweeen pcrfclient01 & pcrfclient02 --------------------
[Thu Aug 25 09:10:47 UTC 2022] [INFO] Doing SVN sync between pcrfclient01 and pcrfclient02...
[Thu Aug 25 09:11:06 UTC 2022] [INFO] SVN are already in sync between pcrfclient01 and
pcrfclient02
[Thu Aug 25 09:11:07 UTC 2022] [INFO] SVN UUID are matched between pcrfclient01 and pcrfclient02
[Thu Aug 25 09:11:07 UTC 2022] [INFO] SVN sync completed successfully for pcrfclient01 &
pcrfclient02
[root@dc1-pcrfclient01 ~]#
```

2. Run this command from either Cluster Manager or pcrfclient, to verify the SVN sync status.

```
[root@installer ~]# diagnostics.sh --svn
CPS Diagnostics HA Multi-Node Environment
---------------------------
Checking svn sync status between pcrfclient01 & pcrfclient02...[PASS]
[root@installer ~]#
```