



Persistent Storage for Policy Configuration

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Feature Summary and Revision History

Summary Data

Table 1: Summary Data

Applicable Products or Functional Area	5G-PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Configuration Required
Related Changes in this Release	Not Applicable
Related Documentation	Not Applicable

Revision History

Table 2: Revision History

Revision Details	Release
First Introduced.	2020.02.0

Feature Description

Restore Capability

The Subversion repository stores the policy-specific configuration data in the XMI format. This repository resides in an SVN pod. If the SVN pod is restarted, the repository experiences a data loss. In such scenarios, you must reimport the configuration files to the SVN pod.

A new restore mechanism is introduced to protect the configuration data and maintain its integrity when the SVN pod restarts.

How it Works

This section provides a summary of how PCF maintains the persistency of configuration files.

The PCF implements the Kubernetes Persistent Volume (PV) framework, which lets the administrators allocate persistent storage for a cluster. Regardless of the storage tier, you can use the Persistent Volume Claims (PVCs) to request PV resources. You must enable persistent volume claim and assign storage that represents local storage. The data residing on the local storage is intact in situations where the associated node or pod restarts.

Restore Capability

The restore capability maintains the continuity of the policy configuration files in conditions where the SVN pod is restarted.

The policy configuration files are in the XMI format. Each SVN repository contains XMI files that are represented in a configMap. The configMap is updated whenever a policy configuration is modified and committed into an SVN repository. When the SVN pod is restarted, it verifies if the configMap is available and the corresponding XMI files are loaded to the repository.

The restore capability is managed through the following configMaps:

- `monitor-svn-configmap-pcf`: Contains configuration data in key-value pairs that represent the repository name and policy hash.
- `policy-svn-persistence-configmap`: Contains the configured value of the policy-configuration-restore configMap.

Configuring the Restore Capability

This section describes how to configure the restore capability.

To configure the restore capability that ensures the persistency of policy configuration file, use the following configuration in the Policy Ops Center console:

```
config
  engine engine_name
    pcf policy-configuration-restore [ true | false ]
  end
```

NOTES:

- `engine engine_name` – Specifies the engine for which the restore capability must be configured
- `pcf policy-configuration-restore [true | false]` – Configures the capability that is responsible for restoring the configMap. The default value for this parameter is true.