

# Introduction

This document describes the solution to an issue in which port-channel group members flap after Ethernet Virtual Connections (EVC) are configured on Cisco ASR 903 Series Aggregation Services Routers.

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

The information in this document is based on Cisco ASR 903 Series Aggregation Services Routers configured as a Provider Edge device with port-channel towards the Customer Edge device.

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.

## Problem

The port-channel group members start to flap after you configure Ethernet Virtual Connections (EVC); when you remove the EVC configuration, the port-channel group members no longer flap.

The logs display output similar to this:

```
GigabitEthernet0/0/4 taken out of port-channell1
GigabitEthernet0/0/4 added as member-2 to port-channell1
GigabitEthernet0/0/5 taken out of port-channell1
GigabitEthernet0/0/5 added as member-2 to port-channell1
```

This issue is specific to the ASR 903 port channels with EVC and is seen in this sample configuration:

```
!
interface Port-channell1
  mtu 1604
  no ip address
  no negotiation auto
  service instance 999 ethernet
    encapsulation dot1q 999
    rewrite ingress tag pop 1 symmetric
    bridge-domain 999
!
service instance 1700 ethernet
  encapsulation dot1q 1700
  rewrite ingress tag pop 1 symmetric
  xconnect 172.26.225.1 1700 encapsulation mpls pw-class TE101
!
service instance 1820 ethernet
  encapsulation dot1q 1820
  rewrite ingress tag pop 1 symmetric
  xconnect 172.26.225.15 1820 encapsulation mpls pw-class TE305
!
interface GigabitEthernet0/0/4
  mtu 1604
  no ip address
```

```
negotiation auto
service-policy input Core-In
service-policy output Core-Out
channel-group 1 mode active
!
interface GigabitEthernet0/0/5
mtu 1604
no ip address
negotiation auto
cdp enable
service-policy input Core-In
service-policy output Core-Out
channel-group 1 mode active
```

## Solution

When you configure port channels with EVC on the ASR 903, you must configure 1 EVC with untagged encapsulation and L2 protocol. For example:

```
interface Port-channel1
!
service instance 1 ethernet
encapsulation untagged
bridge-domain 1
l2protocol peer
!
```

For more information on ASR 903 service instances and port channels, refer to the EFPs and EtherChannels section of the *Configuring Ethernet Virtual Connections on the Cisco ASR 903 Router*.