

Router Failover Not Working in a Duplexed Mode

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Contents

Introduction

Prerequisites

- Requirements
- Components Used
- Conventions

Problem

Solution

Related Information

Introduction

An integral part of Cisco Architecture for Voice, Video and Integrated Data (AVVID) and Cisco IP Contact Center (IPCC) Enterprise Edition delivers these features over an IP infrastructure:

- Intelligent contact routing
- Call treatment
- Network-to-desktop Computer Telephony Integration (CTI)
- Multichannel contact management

Cisco IPCC Enterprise combines multichannel automatic call distributor (ACD) functionality and IP telephony in a unified solution, which enables you to rapidly deploy a distributed call center infrastructure.

Cisco ICM Enterprise Edition segments customers, monitors resource availability, and delivers each contact to the most appropriate resource anywhere in the enterprise. ICM is part of the IPCC Enterprise family of products and ICM is itself a family of products mainly the CallRouter, Logger, Peripheral Gateway (PG), and Admin Workstation (AW).

Prerequisites

Requirements

Readers of this document should have knowledge of these topics:

- IPCC Enterprise Solution
- ICM Solution, understanding the concepts of the CallRouter, Logger, PG, AW

Components Used

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

- ICM version 5.0 and later

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

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

Problem

In an IPCC Enterprise solution, the ICM topology is configured in a duplexed mode. When one router goes down, the other does not take over. Assume LoggerA and RouterA are active. If LoggerA stops, it fails over to LoggerB without any problem but not for the rtr process. For example, if RouterA stops, the RouterB rtr process dies and comes back up, but never goes into service and no calls are processed regardless of which Router is active or running.

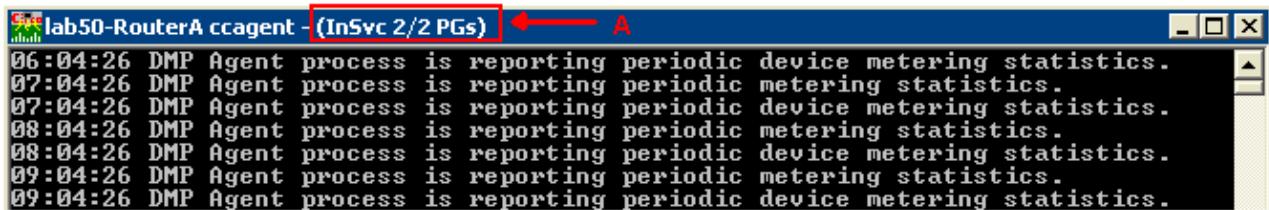
Solution

This problem is related to the number of PGs in service and the total number of PGs configured. If the ICM is configured in a duplexed mode, RouterB or RouterA do not run simplex (isolated – enabled) unless the router is in communication with the majority of enabled PG devices. If both PGs are active in a two PG ICM setup, either RouterA or RouterB can run simplex and become isolated – enabled. If either one of the two PGs does not work, RouterA can run simplex, but RouterB can not. This difference is due to the fact that if an even number of PGs are checked in setup, RouterA runs alone if half are available. RouterB does not run simplex because half is considered a majority to the A side and a minority to the B side. This scenario can occur if several PGs are configured but not online, or if the Router can not see all PGs. When a CallRouter goes down, a "test other side" takes place. When this test occurs, each side verifies if it is connected to a majority of the PGs. If the B side can not connect to a majority of the PGs plus one additional PG, the B side never goes active.

To solve this problem, verify that:

- All PGs are up and running for Router failover to work correctly.
- All IP addresses are entered correctly and on the Router ccagent process window.
- The ccagent process window title bar says InSvc x/y PGs, where x represents the number of active PGs and y represents the total number of PGs (see the A arrow in Figure1).

Figure 1 RouterA ccagent Process



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06:04:26 DMP Agent process is reporting periodic device metering statistics.  
07:04:26 DMP Agent process is reporting periodic device metering statistics.  
07:04:26 DMP Agent process is reporting periodic device metering statistics.  
08:04:26 DMP Agent process is reporting periodic device metering statistics.  
08:04:26 DMP Agent process is reporting periodic device metering statistics.  
09:04:26 DMP Agent process is reporting periodic device metering statistics.  
09:04:26 DMP Agent process is reporting periodic device metering statistics.
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Related Information

- [Technical Support – Cisco Systems](#)
