CallManager IPMA and PA Co−exsistence

Document ID: 63420

Contents

Introduction

This document discusses how to configure Cisco IP Manager Assistant (IPMA) and Cisco Personal Assistant (PA) to allow them to co−exist together in Cisco CallManager 3.3(1) and later. Starting in Cisco CallManager 4.0 there is a "Shared Mode" which does not require an IPMA Route Point, Calling Search Space (CSS)/Partitions (and so forth) for IMPA Shared Mode. This document still applies to the IPMA Proxy Mode.

IPMA and PA can co−exist as part of a Cisco CallManager solution. The two possible configurations are:

- **Configuration 1:** PA intercepts incoming calls for a line and then IPMA intercepts the calls that are routed to manager lines.
- **Configuration 2:** IPMA intercepts incoming calls for a manager. If PA is active for the line that IPMA routed the call to, then PA rules are applied.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

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

- Cisco CallManager 3.3(1) and later
- PA 1.3(3) and later

Note: Starting in Cisco CallManager 4.0, Cisco supports the Shared Mode configuration in IPMA. This document does not apply to the Shared Mode configuration of IPMA as there is no need for the IPMA Route

Point, CSS/Partitions (and so forth) for the IPMA Shared Mode. The document still applies to the IPMA Proxy Mode.

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.

Configuration 1: Cisco PA Intercepts an Incoming Call and Forwards it to Cisco IPMA

This configuration is used to allow PA to handle all calls for a manager. For example, the manager has a PA rule that states that on Monday through Friday, from 8:00 am to 5:00 pm, calls are sent to the work phone. If the manager is not there (for example, if there is no answer), then calls are sent to the manager's cell phone. For all other days and times, calls are forwarded to the cell phone. In this case, if a call is received on the weekday, PA forwards the call to the manager's work phone. IPMA then intercepts this same call and sees if there is an online assistant for that manager. If there is an online assistant, IPMA sends the call to the assistant. IPMA can also forward the same call to other destinations based on IPMA DivAll target and filtering rules.

All calls flow through the IPMA route point. IPMA only intercepts those that are intended for IPMA manager's lines.

Partitions

- **IPMA−Managers** Assign this partition to manager lines that are administered for IPMA. These IPMA managers can be PA users also.
- **IPMA−Route Point** Assign this partition to lines on the IPMA Route Point used to intercept incoming calls to IPMA manager lines.
- **PA** Assign this partition to the line on the CTI Route Point used by PA to intercept incoming calls to PA Users.
- **PA−Managed** Assign this partition to lines for all users who want to use PA.

  Note: IPMA manager lines for managers that want to use PA still need to be assigned to the IPMA−Managers partition.
- **Everyone** Assign this partition to lines for users who do not want to use either IPMA or PA.

Calling Search Spaces

- **CSS−PA** This is the CSS assigned to the PA interceptor Route Point and the PA Route Point used for IVR functionality. This CSS contains these partitions in order:

  1. IPMA−Route Point
  2. PA−Managed
  3. Everyone
- **IPMA Managers** This is the CSS assigned to the IPMA Route Point and assistant proxy lines. This CSS contains these partitions in this order:

  1. IPMA−Managers

2. Everyone

- **CSS−IPMA−PA** This is the CSS assigned to the translation patterns that are used when either IPMA, PA, or both are down. This CSS contains these partitions in this order:

  1. IPMA−Managers
  2. PA−Managed
  3. Everyone

- **All_Calls** This is the CSS assigned to all other lines, gateways, PBXs, and so forth. This CSS contains these partitions in this order:

  1. PA
  2. IPMA−Route Point
  3. Everyone

Device Configuration

CTI Route Points	Partition	CSS
IPMA Route Point	IPMA−Route Point	IPMA−Managers
PA Route Point for interception	PA	CSS−PA
PA Route Point (used for IVR functionality)	Everyone	CSS−PA

Translation Pattern	Partition	CSS
(for example, 23xxx)	Everyone	CSS−IPMA−PA

Note: The translation pattern should match both the PA and IPMA route point DNs. You can have multiple translation patterns if the DNs are different.

Lines	Partition	CSS
IPMA Manager's Lines (with/without PA support)	IPMA−Managers	All_Calls
Other users who want PA	PA−Managed	All_Calls
Users who do not want PA	Everyone	All_Calls

Media Ports (Skinny) for PA	Partition	CSS
Media ports for PA	Everyone	All_Calls

Known Problems

- For a call that is transferred from PA to IPMA and then redirected by IPMA to the assistant, the call control functions of IPMA Assistant Console do not work. Cisco bug ID CSCdz65896 (registered customers only) , which discusses arbitrary transfer issues with PA and IPMA co−existence, tracks this issue.
- If an assistant calls any IPMA manager from a proxy line, the PA rules for that IPMA manager do not get applied.

- An assistant cannot have PA rules for proxy lines. If IPMA redirects a manager's call to the assistant's proxy line, any PA rules setup for this proxy line do not get executed.

Configuration 2: IPMA Intercepts an Incoming Call and Forwards it to PA

This configuration allows IPMA to handle all calls for the managers first. If there is a call for the manager, IPMA applies the filtering/DivAll rules of the manager. After the rules are applied, IPMA sends the call to a destination number. This can be either the manager or assistant's proxy line or another destination. If the destination number is a PA user's number, PA intercepts the call and applies the rules. All calls flow through the PA Route Point. PA only intercepts those calls that are intended for PA users. An assistant or another target can also be a PA user.

Partitions

- **IPMA–Managers** Assign this partition to lines for IPMA managers who do not want to use PA.
- **IPMA–Route Point** Assign this partition to lines on the IPMA Route Point used to intercept incoming calls to IPMA manager lines should be assigned this partition.
- **PA** Assign this partition to the line on the Route Point used by PA to intercept incoming calls to PA.
- **PA–Managed** Assign this partition to lines for all users who want to use PA.

  Note: Also assign this partition to IPMA manager lines for managers that want to use PA.
- **Everyone** Assign this partition to lines for users who do not want to use either IPMA or PA.

Calling Search Spaces

- **IPMA Managers** This is the CSS assigned to IPMA Route Point and assistant proxy lines. This CSS contains these partitions in this order:

  1. PA
  2. IPMA–Managers
  3. Everyone
- **CSS–PA** This is the CSS assigned to the PA interceptor Route Point and the PA Route Point used for IVR functionality. This CSS contains these partitions in this order:

  1. PA–Managed
  2. Everyone
- **CSS–IPMA–PA** This is the CSS assigned to the translation patterns that are used when either IPMA, PA, or both are down. This CSS contains these partitions in this order:

  1. IPMA–Managers
  2. PA–Managed
  3. Everyone
- **All_Calls** This is the CSS assigned to all other lines, gateways, PBXs, and so forth. This CSS contains these partitions in this order:

  1. IPMA–Route Point
  2. PA
  3. Everyone

Device Configuration

CTI Route Points	Partition	CSS
IPMA Route Point	IPMA–Route Point	IPMA–Managers
PA Route Point for interception	PA	CSS–PA
PA Route Point (used for IVR functionality)	Everyone	CSS–PA

Translation Pattern	Partition	CSS
(for example, 23xxx)	Everyone	CSS–IPMA–PA

Lines	Partition	CSS
IPMA Manager's Phone (with no PA support)	IPMA–Managers	All_Calls
IPMA Manager's Phone (with PA support)	PA–Managed	All_Calls
All other users who want PA	PA–Managed	All_Calls
All other users who do not want PA	Everyone	All_Calls

Media Ports (Skinny) for PA	Partition	CSS
Media ports for PA	Everyone	All_Calls

Known Problems

If a user (internal or external) calls a PA voice port and then asks for any user, PA processes its rules first before it forwards the call to its destination. For example, if the user calls and asks for an IPMA manager, only the PA rules are applied for this call. IPMA rules do not get applied. To help resolve this problem, refer to Cisco bug ID CSCdz65976 (registered customers only) , which discusses an option to not apply PA rules if a call is received at PA media ports. On the other hand, if the same caller calls the IPMA manager directly (manager's primary DN), then it works fine. The call is processed by IPMA first and then by PA as configured.

Related Information

- **Voice Technology Support**
- **Voice and IP Communications Product Support**
- **Troubleshooting Cisco IP Telephony**
- **Technical Support & Documentation – Cisco Systems**