iPECS

iPECS-CM

ACD & CTI Feature Description & Operation Manual

Please read this manual carefully before operating System.
Retain it for future reference.

iPECS is an Ericsson-LG Brand

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Revision History

ISSUE	DATE	DESCRIPTION OF CHANGES
1.0	15-Apr-10	Preliminary release
2.0	15-Oct-10	Initial Release
3.0	30-Jun-11	Related WMS Menu update
3.1	02-Dec-11	New Edition including Version 3.0
3.2	23-Dec-11	Update for changed WMS menu
3.3		General Update
3.4	26-MAY-13	ACD Group No. update
3.5	26-Dec-13	Changed Ericsson-LG to Ericsson-LG Enterprise

Table of Contents

1. ACD CTI Introduction

Automatic Call Distribution (ACD) service distributes incoming calls to a specific group of terminals (ACD Agent Group) based on predefined routing rules such as longest-idle-agent-first, most-skilled-agent-first, etc. ACD is commonly used in contact centers that handle large volumes of incoming callers who require assistance that can be provided from any of multiple persons (e.g., customer service representatives) at the earliest opportunity.

Along with Computer Telephony Integration (CTI), ACD provides more intelligent routing as well as various supplementary services by providing a communication link with external applications such as CRM (Customer Relationship Management).

CTI maximizes work efficiency and improves customer service via communication between the computer database systems and the telephone system to implement advanced call routing services. It provides not only basic features such as automatic dialing, intelligent call routing, automatic information window pop-ups related with an incoming call, automatic information transfer related with the transferred calls, caller recognition, but also supplementary features including voice recording/retrieving, voice recognition, FAX integration and SMS integration.

The CTI link is the connection between the PBX and CTI Server that can be configured to meet the needs of the contact center environment and CTI application vendor specification. The CTI link in iPECS CM is compatible with ECMA standard (CSTA Phase-II).

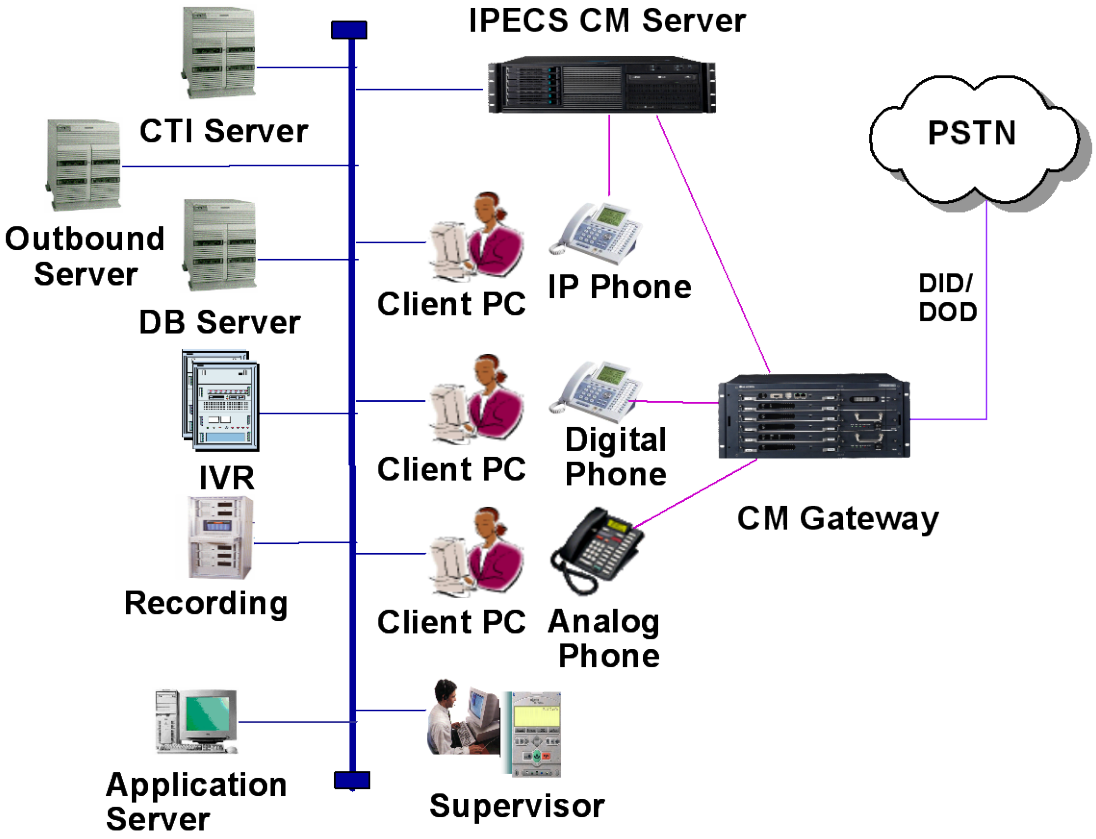


Figure 1 iPECS-CM ACD CTI Basic Configuration

iPECS-CM supports up to five (5) concurrent CTI links and each can be configured as Active or Standby based on CTI Server policy.

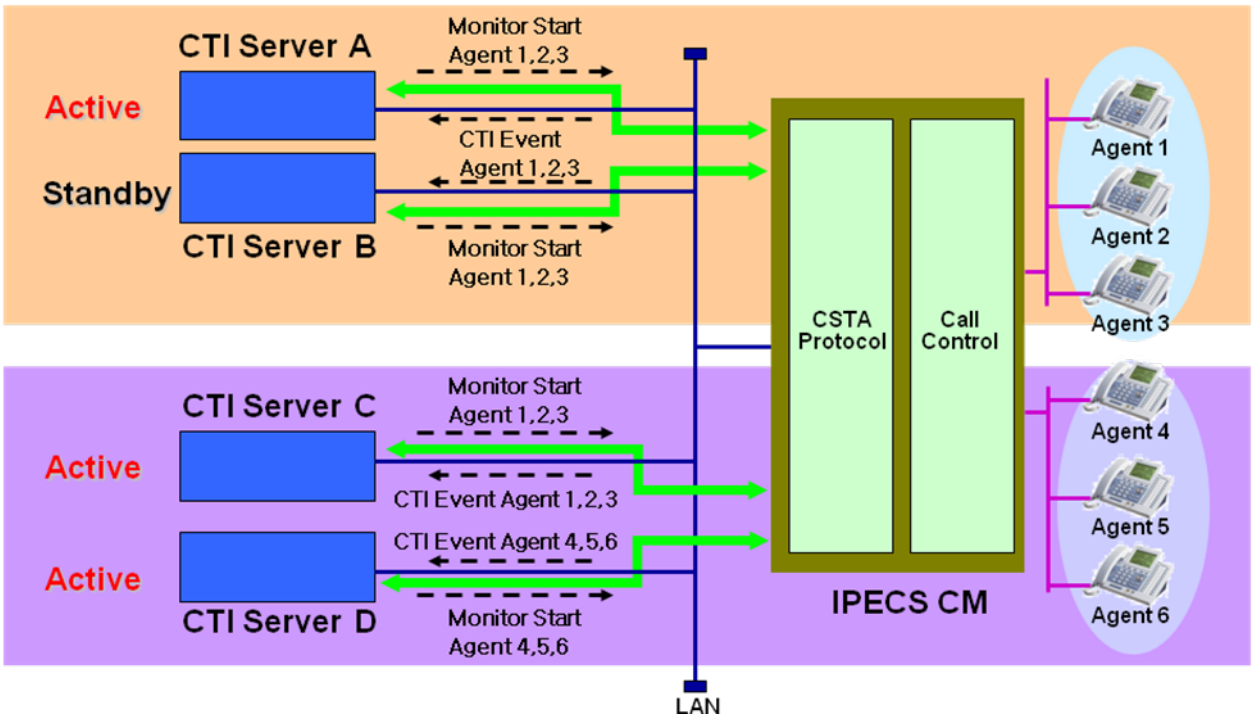


Figure 2 iPECS-CM CTI Server Interface Configuration

The following tables describe features and functions available to each of the ACD user types and terminals.

	SLT	LDP Series	LIP Series	SIP Phone	WIT-400H
ACD Supervisor	N	Y	Y	N	N
ACD Assistant Supervisor	N	Y	Y	N	N
ACD Agent	Y	Y	Y	Y	N

		SLT	LDP Series	LIP Series	SIP Phone	WIT-400H
ACD System Feature						
	Automatic Call Distribution	Y	Y	Y	Y	N
	Queue Announcement	Y	Y	Y	Y	N
	Queued Call Display	N	Y	Y	N	N
ACD Agent Feature						
	Log On	Y	Y	Y	Y	N
	Log Off	Y	Y	Y	Y	N
	ACD Automatic Answer	N	Y	Y	N	N
	Release Button	N	Y	Y	N	N
	Work After Call Mode	Y	Y	Y	Y	N
	Not Ready Mode	Y	Y	Y	Y	N
	Automatic Work After Call	Y	Y	Y	O	N
	Automatic Work After Call Release	Y	Y	Y	N	N
	Handset/Headset Mode	N	Y	Y	N	N

		SLT	LDP Series	LIP Series	SIP Phone	WIT-400H
	Ring/Tone Mode	N	Y	Y	N	N
	Call Release Using Work Mode Button during Agent Call	N	Y	Y	N	N
	Handset/Headset Setting upon Agent Logon	N	Y	Y	N	N
	Handset/Headset Setting upon Agent Logoff	N	Y	Y	N	N
	Ring/Tone Mode Setting upon Agent Logon	N	Y	Y	N	N
	Automatic Answer upon Agent Logon	N	Y	Y	N	N
	Agent ACD Call Indication	N	Y	Y	N	N

2. ACD System Features

2.1 ACD Capacities

The chart below summarizes the iPECS-CM ACD capacities.

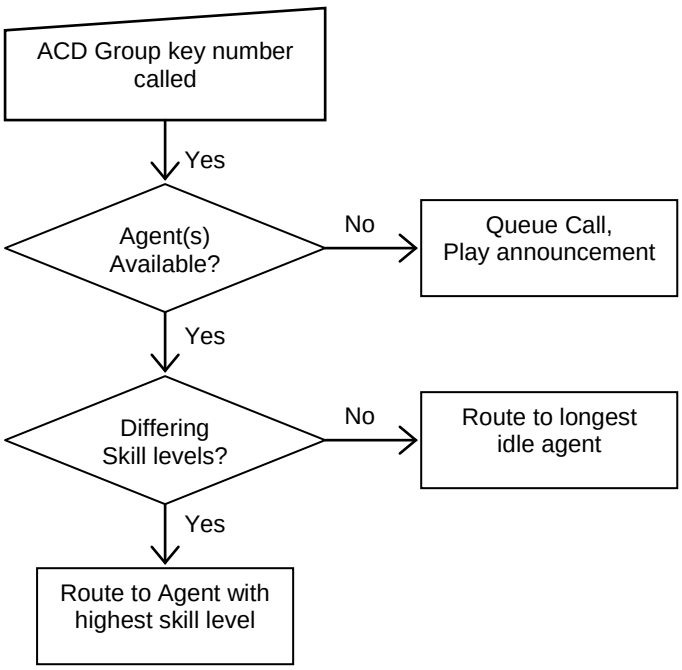
ITEM	QUANTITY
Max. ACD Group	800
Max. ACD Agent	6000
Max. ACD Agent/ACD Group	1000
Max. Waiting Call/ACD Group	500
Max. Waiting Step/ACD Group	5
Supervisor/ACD Group	1
Assistant supervisor/ACD Group	30
Agent Skill Level	255
ACD Agent Terminal Type	Digital, Analog, IP, SIP Phones
ACD Key Number/ACD Group	20

2.2 Automatic Call Distribution

Description

Incoming calls to the ACD group 'Key Number' are distributed to ACD agents based on configuration of the ACD Group, which is accomplished through WMS.

Operation



Conditions

- If no agent is available, the call is queued and the assigned announcement is heard (refer to Section 2.3).

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group > "Key Number"
> ACD/CTI Information > ACD Group > "Agent Phone Number"

Related Features

- Queue Announcement
- Work Mode
- Not Ready Mode
- Log On

Hardware

2.3 Queue Announcement

Description

If there is no agent available for an incoming call to an ACD group, the call is queued and an announcement played based on the ACD Group Tone configuration.

Recorded announcements can be checked with feature codes from terminals including the ACD supervisor, assistant supervisor and agent.

Operation

To assign a Flex button for {ACD Announcement Play} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Announcement Play} + **[SAVE]**

To check the recorded announcement from a terminal:

1. Dial the {ACD Announcement Play} Feature code.
2. Press the ACD Tone Index assigned for the ACD Group Tone.

Conditions

- Separate queue announcements can be programmed for each ACD group.
- Up to five (5) steps can be configured for each ACD queue. Each of the queue steps can have separate announcements.
- The maximum length of an announcement is 600 seconds.

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > "Waiting Step"
> ACD/CTI Information > ACD Group Tone > 1st ~ 5th Announcement

Related Features

- Call Vector

Hardware

2.4 Queued Call Display

Description

The number of queued calls is displayed in the terminal LCD (IP phone and Digital phone) of agents, supervisors, and assistant supervisors logged on to the ACD group. The 'calls in queue display' by default is disabled.

In addition to displaying Queued Call information to members of an ACD group, the Queued Call display information can be sent to members of other ACD groups. A maximum of five (5) ACD groups can receive the Queued Call display for an ACD group.

The Queued Call information is sent at regular intervals from 10 to 100 seconds defined in 10-second increments.

Operation

Conditions

- It is recommended the option to send the queued call display to other groups in high traffic sites due to the increased system-processing load required.

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > "Queued Call Count Display Option"
> ACD Group Attribute > "Time Interval of Queued Call Count Display Option"
> ACD Group Attribute > "Group Number for Queued Call Count Display"

Related Features

Hardware

2.5 Night Service

Description

Calls terminated to an ACD group while the system is in the Night mode are given one of the following services:

- Release
- Night announcement
- Forwarding to another number

The Night service mode is applied in the following cases:

- Automatic mode based on time information
- Change to Night mode by ACD supervisor using the Night button (refer to Section 4.2, Supervisor Night Service)
- Administrative change to Night mode through WMS

Operation

Conditions

Related WMS Menu

Data Management" > ACD/CTI Information > ACD Group Service State > “Night”
> ACD/CTI Information > > ACD Group Attribute > “Service State”
> ACD/CTI Information > ACD Group Attribute > “Time Zone No.”
> ACD/CTI Information > ACD Group Tone> “Night Announcement”

Related Features

Hardware

2.6 Holiday Service

Description

Calls terminated to an ACD group while the system is in the Holiday mode are given one of the following services:

- Release
- Holiday announcement
- Forwarding to another number

Holiday mode can be applied for the following cases.

- Automatic mode based on time information
- Change to Holiday mode by an ACD supervisor using the Holiday button (refer to Section 4.3, Supervisor Holiday Service)
- Administrative change to Holiday mode through WMS
- To use the multiple holiday announcements, 10 kinds of holiday can be assigned in System Time Zone. And 10 kinds of holiday announcement can be assigned in ACD Group Tone.

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Service State > “Holiday”
> ACD/CTI Information > ACD Group Attribute > “Service State”
> ACD/CTI Information > ACD Group Attribute > “Time Zone No.”
> ACD/CTI Information > ACD Group Tone > “Holiday Announcement”
> System Management > System Time Zone > “ ACD Holiday Announcement”

Related Features

Hardware

2.7 Overflow Service

Description

Calls terminated to an ACD group in Overflow mode are given one of the following services:

- Release
- Overflow announcement
- Forwarding to another number

The Overflow mode is applied when the number of calls in queue exceeds the Overflow Call Count (up to 500) for the ACD Group. The Overflow Call Count can be changed through WMS as well as a Supervisor terminal (refer to Section 4.4).

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > “Service State”
> ACD/CTI Information > ACD Group Attribute > “Overflow Call Count”
> ACD/CTI Information > ACD Group Tone> “Overflow Announcement”
> ACD/CTI Information > ACD Group Service State > “Overflow”

Related Features

Hardware

2.8 Time Out Rerouting

Description

If a call cannot be delivered to an agent and the last announcement step in the queue completes, the call can be rerouted to another destination (ACD Group, Extension or Trunk). This feature provides a timed Overflow, when a call has been in queue for the defined time-out.

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > "Waiting Step"
> ACD/CTI Information > ACD Group Attribute > "Rerouting Usage on Queuing Time out"
> ACD/CTI Information > ACD Group Attribute > "Rerouting Destination on Queuing Time out"
> ACD/CTI Information > ACD Group Tone > 1st ~ 5th Announcement

Related Features

Hardware

2.9 ACD Trunk Answer (Queue Answer/Agent Answer)

Description

Answer supervision for an ACD call can be sent to the carrier when the call is queued or when the call is answered by an agent. The answer supervision timing is configured in WMS as:

- Send Answer when the call is queued
  The call is answered when the call is queued to the ACD Group.
- Send Answer when the call is answered by an agent
  The call is answered when an agent answers the call, not when the call is in queue.

Operation

Conditions

- The network may release the "unanswered call" in queue if the queue time exceeds the service provider's Ring no-answer timer.

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > "Answer Signal Send Time to I/C Trunk Call"

Related Features

Hardware

2.10 ACD Group/Agent Call Traffic

Description

ACD Group Call Traffic and Agent Call Traffic are automatically saved in the System. Supervisor and Assistant Supervisors can check these kinds of Traffic data on their IP/Digital-Phone. And also Supervisor and Assistant-Supervisors can access ACD Group Call Traffic and ACD Agent Call Traffic menu in WMS and then check and clear Traffic data.
ACD Group Call Traffic can be printed periodically as Information-Data format through TCP port. And also Supervisor and Assistant Supervisors can print these kinds of data manually.

Operation

1. **Supervisor and Assistant Supervisors can check ACD Group Call or Agent Call Traffic with {ACD Supervisor Traffic Info} feature code.**

1) ACD Group Call Traffic

ACD Group call data will be saved and Traffic Data format is just like bellow lists.

- Total Calls Count
- Unanswered Call Count
- Average Call Time 00:00 (minute: second)
- Average Ring Time 00:00 (minute: second)
- Busy Count and Time 00:00:00 (hour: minute: second)
- Number of calls count in Current Queue
- Average Queued Time 00:00 (minute: second) and Longest Queued Time 00:00 (minute: second)

- Supervisor can check all of data with Volume Up/Down Key or Up / Down in Navigation Key.
- During checking the Group Call Traffic information, Supervisor can clear all of Group Call Traffic with **[SPEED]** button. If Supervisor uses 3-soft keyset, Delete menu will be displayed at 3-soft menu.
- Average Call time means average conversation time of all of agent ACD call.
- Busy count means how many times all of agents are busy. And Busy time means total accrued Times of Agent's busy state.
- Information about Queued data will be always computed when there are queued ACD calls in Queue.

2) Agent Call Traffic

Agent's ACD call data will be saved and Traffic data format is just like bellow lists.

- Total Calls Count
- Unanswered Call Count
- Average Call Time 00:00 (minute: second)
- Average Ring Time 00:00 (minute: second)
- Last Log-In Time 00:00:00 (hour: minute: second)

- When Supervisor enter Agent Call Traffic feature, first agent data will be displayed. And Supervisor can check all of agent data with Volume-Up/Down button or Up/Down in Navigation Key.
- During checking the Group Call Traffic information, Supervisor can clear all of Group Call

Traffic with **[SPEED]** button. If Supervisor uses 3-soft keyset, Delete menu will be displayed at 3-soft menu.

- Average Call time means average conversation time.
- When supervisor check the Last Log On Time at ACD Group Call Traffic menu in WMS, Log on date is able to be displayed.

2. **ACD Group/Agent Call Traffic data are able to be displayed in WMS**

3. **Traffic data Print to TCP Port**
   - WMS> ACD Group Attribute > Traffic Data Print Usage : "Use"
   - WMS> ACD Group Attribute > Traffic Data Print interval (sec): 10 ~ 2500 sec.
   - The ACD Group traffic data will be periodically printed though TCP 9010 port.
   - When WMS> ACD Group Attribute > Traffic Data Clear After Print is set to "USE", Traffic data will be deleted after transmitting.

Periodic Print ACD Group Call Traffic Format

~ 1 = 2 = 3 = 4 = 5 = 6 = 7 = 8 = 9 = 0 cr lf

Field(s)	DESCRIPTION
~(tilt)	Means start of ACD statistics and is always located at first column
=(equal)	Delimiter between each meaningful data
1	ACD Group number
2	Total call counter
3	Unanswered call counter
4	All busy counter
5	Average ringing time (ex., 96=1 min 36 sec)
6	Average call service time (ex., 25=0 min 25 sec)
7	Total busy time (ex., 64=1 min 04 sec)
8	Number of current queued calls
9	Longest queued time
0	Average queued time
lf	Line Feed (0x0A)
cr	Carriage Return (0x0D)

Supervisor or Assistant Supervisors can print Group Call Traffic data through TCP port manually.

1. Press **{ACD Supervisor Traffic Info}** feature code.
2. Choose Group Traffic data.
3. Press **[HOLD/SAVE]** button for printing data through TCP port.

Supervisor or Sub-Supervisor can print Agent Call Traffic data at Information-Print port.

1. Press **{ACD Supervisor Traffic Info}** feature code.
2. Choose Agent Traffic data.
3. Find desired Agent number with "*" or "#" button, Left/Right in Navigation Key.
4. Press **[HOLD/SAVE]** button for printing data through TCP port.

Agent Call Traffic Format

~ 1 = 2 = 3 = 4 = 5 cr lf

Field(s)	Description
~(tilt)	Means start of ACD statistics and is always located at first column
=(equal)	Delimiter between each meaningful data
1	Each Agent number
2	Total call counter
3	Unanswered call counter
4	Average ringing time (ex., 96=1 min 36 sec)
5	Average service time (ex., 96=1 min 36 sec)
lf	Line Feed (0x0A)
cr	Carriage Return (0x0D)

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Call Traffic
> ACD/CTI Information > ACD Agent Call Traffic
> ACD/CTI Information > ACD Group Attribute > “Traffic Data Print Usage”
> ACD/CTI Information > ACD Group Attribute > “Traffic Data Print Interval”
> ACD/CTI Information > ACD Group Attribute > “Traffic Data Clear After Print”

Related Features

Hardware

3. ACD Agents

3.1 Log On

Description

An ACD group can be configured to require the Agent to Log On to the group to provide service. Once an Agent logs on, the system will deliver calls to the Agent. The state of the Agent at Log On is determined by WMS configuration. The Agent state at Log On is configured as Work, Not Ready or Ready Mode.

When the Agent ID is required for Log On, the user must enter the assigned ID (up to 8 digits). After the ID is entered, the system compares the entry to configured IDs and, if matched, the Agent is logged in to the ACD group in the configured mode.

When an Agent logs on an Agent ID which was configured Agent Name, Agent Name will be displayed on Agent terminal instead of DN name. When the Agent logs off, DN name will be displayed on Agent terminal.

Operation

iPECS Multi-button Phone

To assign a Flex button for {ACD Agent Log On/Off} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Log On/Off} + **[SAVE]**

To log on to an ACD group when Agent ID is configured:

1. Press the Flex button for {ACD Agent Log On/Off}.
2. Enter Agent ID followed by '*' or '#'.
3. The Agent Registration button LED turns on and "Log On" displays in LCD.

To log on to an ACD group when Agent ID is not configured:

1. Dial the {ACD Agent Log On/Off} feature code and # or "call" button.

To display Agent Name during Agent Log On state:

1. Register Agent Name.
   - On Agent Log On state, **[PGM]** + '1' + '2' + Enter Agent Name
     Or, Register the Agent Name at ACD Agent Information> Agent Name in WMS
2. Logs on following above procedure.
3. Agent Name is displayed on Agent terminal.
4. Logs off following below procedure(3.2).
5. DN name is displayed on Agent terminal.

SIP Phone or SLT

To log on to an ACD group when Agent ID is configured:

1. Dial the {ACD Agent Log On/Off} feature code
2. Dial the Agent ID, and '#' or "call" button.

Conditions

- An active ACD agent cannot activate DND or Call Forward. When the agent logs on to the ACD group, DND and Call Forward, if active, are cancelled.
- If the "Number of digits for Logon Agent ID" in the WMS ACD System Options is properly configured, the iPECS Multi-button phone user need not enter '#' to indicate the completion of entry.
- If the Agent ID entered by the user is not configured, "INVALID AGENT ID" displays in the Multi-button phone LCD.
- If the Agent ID is already in use (logged on), "USED BY XXXX" displays indicating the Extension number using the ID as XXXX.
- For a SIP phone or SLT, the log on state does not display in the LCD.

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > "Agent ID Usage at Agent Log on"
> ACD/CTI Information > ACD Agent Information > "Agent ID"
> ACD/CTI Information > ACD Agent Information > "Agent Name"
> ACD/CTI Information > ACD System Option > "Number of Digit for Agent ID"
> Numbering Plan Information > Feature Code > "ACD Agent Log On/Off"
> Extension Information > Terminal Information > Phone Flexible Button

Related Features

- Agent Log Off
- Work Mode
- Not Ready Mode

Hardware

3.2 Agent Log Off

Description

A logged on Agent can log off of the ACD group so that the Agent is no longer an active member of the group and calls to the ACD group 'Key number' are no longer routed to the Agent.

Operation

iPECS Multi-button Phone

To assign a Flex button for {ACD Agent Log On/Off} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Log On/Off} + **[SAVE]**

To log off an ACD group:

1. Press the Flex button for {ACD Agent Log On/Off}; the {ACD Agent Log On/Off} Flex button LED will extinguish and "Log Off" is displayed on LCD.

SIP phone or SLT

To log off an ACD group:

1. Dial the {ACD Agent Log On/Off} feature code and # or "call" button.

Conditions

- The feature code {ACD Agent Log On/Off} must be registered in WMS.
- For a SIP phone or SLT, the Log On/Off state does not display in the LCD.

Related WMS Menu

Data Management > Numbering Plan Information > Feature Code > "ACD Agent Log On/Off"

Related Features

- Log On

Hardware

3.3 ACD Automatic Answer

Description

When a call is routed to an Agent with Auto Answer active, the call is automatically connected to the phone at expiration of the Handsfree Answer Ring timer. The Handsfree Answer Ring Timer is configured in WMS. Auto Answer can be configured to activate automatically when the Agent Logs On or a by the Agent employing a Flex button of an iPECS Multi-button phone to toggle the Auto Answer state.

Operation

To assign a Flex button for {ACD Agent Auto Answer} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Auto Answer} + **[SAVE]**

To enable/disable Automatic Call Answer:

1. Press the {ACD Agent Auto Answer} Flex button. The Flex button LED illuminates red indicating Auto Answer is active or extinguishes indicating Auto Answer is not active.

Conditions

- The ACD Agent must have an iPECS Multi-button phone with an Automatic Answer Flex button assigned to control the Auto Answer state.

Related WMS Menu

Data Management > Tenant Information > Tenant Tone/Ring Information > Tenant System Ring > “Handsfree Answer Ring”
> Numbering Plan Information > Feature Code > “ACD Agent Auto Answer (On/Off)”
> Extension Information > Terminal Information > Phone Flexible Button > ACD/CTI Information > ACD Group Attribute > “Auto Answer Usage at Agent Log on”

Related Features

- Log On

Hardware

3.4 Release Button

Description

A Flexible button of the iPECS Multi-button phone can be configured as a Release button allowing the Agent to release a call by pressing the button. The ACD Call Release button is commonly used when an Agent is in Headset mode.

Operation

To assign a Flex button for {ACD Agent Release Call} operation using an Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Release Call} + **[SAVE]**

To release a call with the Call Release button:

1. Press the {ACD Agent Release Call} Flex button. The active call is released.

Conditions

- A Work Mode button can be assigned and configure to terminate an active call when pressed.

Related WMS Menu

Data Management > Numbering Plan Information > Feature Code > “ACD Agent Release Call”

Related Features

- Log On
- Work Mode

Hardware

3.5 Work Mode

Description

After completing an ACD group call, an Agent can activate the Work Mode to wrap-up paperwork or other activity that the Agent must complete before receiving additional ACD calls. The Work Mode Flex button can be assigned to act as a Call Release button as well as activating Work Mode; pressing the {ACD Agent Work Mode} button terminates the active call and places the phone in the Work mode. While in the Work Mode, the Agent is seen as unavailable to the ACD group.

An ACD group can be configured to place an Agent into the Work Mode automatically, allowing the Agent to wrap-up paperwork or other required activity. Work Mode activates when the Agent returns to idle from one of the following conditions as configured in WMS:

- Agent returns to idle from conversation.
- Agent returns to idle from conversation or ringing
- Agent returns to idle from conversation or dialing.
- Agent returns to idle from conversation, ringing or dialing

After the configured Auto Switch time, the Agent terminal returns to the Ready Mode and calls are delivered to the Agent in the normal fashion.

For Agents employing an iPECS Multi-button phone, a Flex button can be assigned to enable or disable Auto Work Mode. For other terminals, Auto Work mode is controlled in WMS only.

Operation

Manually activated Work Mode

iPECS Multi-button phone

To assign a Flex button for {ACD Agent Work Mode} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Work Mode} + **[SAVE]**

To enable or disable Work Mode:

1. Press the Flex button for {ACD Agent Work Mode}. The LED turns ‘On’ and “AGENT WORK” displays in the phone LCD to indicate the Work Mode is active. If configured, pressing the Work Mode button also terminates the active call.

SIP phone or SLT

To enable or disable Work Mode from a SIP phone or SLT:

1. Dial the {ACD Agent Work Mode} feature code and ‘#’ or “call” button. If the Agent is in the Ready mode, Work mode will activate.

Automatic activated Work Mode

iPECS Multi-button phone

To assign a Flex button for {ACD Agent Auto Work Mode after Call} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Auto Work Mode After Call} + **[SAVE]**

To enable Automatic Work Mode:

1. Press the Flex button {ACD Agent Auto Work Mode after Call}. If enabled, the LED turns on and “Automatic Work Mode” displays in the LCD.

Conditions

- ACD Agent Work Mode is available to logged on agents only.
- The Feature code for {ACD Agent Work Mode} must be registered in WMS.
- For a SIP phone or SLT, the Work Mode state does not display in the LCD.
- ACD Agent Automatic Work after Call is available only for logged on Agents.
- If the Automatic Work Mode timer is not defined in WMS, the Work Mode must be disabled manually.

Related WMS Menu

Data Management
> Numbering Plan Information > Feature Code > “ACD Agent Work Mode”
> Numbering Plan Information > Feature Code > “ACD Agent Auto Work Mode After Call (On/Off)”
> ACD/CTI Information > ACD Group Attribute > “Agent Auto Switch to Work Mode”
> ACD/CTI Information > ACD Group Attribute > “Agent Auto Switch Time from Work Mode”
> ACD/CTI Information > ACD Group Attribute > “Active Call Release by Pressing Work Mode Button”

Related Features

- Log On
- Not Ready Mode

Hardware

3.6 Not Ready Mode

Description

Similar to Work Mode, Agents can enable the Not Ready Mode indicating they are not available for new calls. The Not Ready Mode is commonly used for a temporary absence such as lunch, meetings or other work breaks.

Operation

iPECS Multi-button phone

To assign a Flex button for {ACD Agent Not Ready Mode} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Not Ready Mode} + **[SAVE]**

To enable and disable the Not Ready Mode:

1. Press the {ACD Agent Not Ready Mode} Flex button; the LED turns on and “Not Ready Mode” displays in the LCD to indicate Not Ready Mode is active.

SIP phone or SLT

To enable or disable the Not Ready Mode:

1. Dial the {ACD Agent Not Ready Mode} feature code and ‘#’ or “call” button. If the Agent is in the Ready mode, the Not Ready Mode activates.

Conditions

- ACD Agent Not Ready Mode is available only for logged on Agents.
- For a SIP phone or SLT, the Ready Mode state does not display in the LCD.
- The Feature code for {ACD Agent Not Ready Mode} must be assigned in WMS Menu.

Related WMS Menu

Data Management > 1) Numbering Plan Information > Feature Code > “ACD Agent Not Ready Mode”

Related Features

- Log On
- Work Mode

Hardware

3.7 Handset/Headset Mode

Description

The iPECS Multi-button phone and Ericsson-LG Enterprise Digital phones can be equipped with a Headset or Earphone (Ear & Mic headset). In addition, certain models can be equipped with a Bluetooth module that can be paired with a standard Bluetooth headset. When equipped, a Flex button of the phone is used to control the audio and signaling path from the normal handset to the Headset/Earphone or Bluetooth connection as appropriate for the equipment connected to the phone.

The ACD Agent Headset button will toggle the mode as below.

- Handset: LED Off
- Headset: LED On (RED)
- Earphone: LED On (Green) – restricted to terminals supporting Earphone.
- Bluetooth: LED On (Green) – restricted to terminals supporting Bluetooth.

Since terminals support either an Earphone or Bluetooth module but not both, the same LED color (Green) is used to indicate the active mode.

Operation

iPECS Multi-button phone

To assign a Flex button for {ACD Agent Head/Hand Set} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Head/Hand Set} + **[SAVE]**

To use a Bluetooth Headset:

1. After agent log on and pairing the Bluetooth headset to the Bluetooth module, press the inactive {ACD Agent Head/Hand Set} Flex button. The Flex button LED illuminates and “Headset Mode” displays in the LCD.
2. Press the red headset button; LED turns green and “Bluetooth Mode" displays in the LCD.
3. Press the green headset button; LED turns ‘Off’ and “Headset Mode” displays in the LCD.

To use Earphones:

1. After agent log-on, press the inactive {ACD Agent Headset} Flex button. The button LED illuminates red and “Headset Mode” displays in the LCD.
2. Press the illuminated headset button; the LED turns green and “Earphone Mode" displays in the LCD.
3. Press the green illuminated headset button; the LED turns ‘Off’ and “Handset Mode” displays in the LCD.

To use Headset/Handset:

1. After agent log-on, press the inactive {ACD Agent Headset} Flex button. The LED illuminates red and “Headset Mode” displays in the LCD.
2. Press the illuminated headset button; the LED turns ‘Off’ and “Handset Mode” displays in the LCD.

Conditions

- In general, the Digital phones support an Ear & Mic Headset (Earphone). The iPECS Multi-button phones support a standard Headset terminated with an RJ-11 jack.
- The Handset/Headset mode for a phone can be configured in WMS to activate automatically when the Agent Logs 'On' or 'Off'.

Related WMS Menu

Data Management > Numbering Plan Information > Feature Code > "ACD Agent Head/Hand Set"
> ACD/CTI Information> ACD Group Attribute >" Handset Mode at Agent Log on"
> ACD/CTI Information > ACD Group Attribute > "Handset Mode Agent Log off"

Related Features

- Log On
- Agent Log Off
- Ring/Tone Mode

Hardware

3.8 Ring/Tone Mode

Description

Using an iPECS Multi-button phone with a Headset, the incoming call audible signal can be configured to provide signaling to the headset. The mode is automatically selected when the Agent Logs 'On' or 'Off' based on WMS configuration. The Ring/Tone mode can also be controlled by the user with an {ACD Agent Headset Ring Mode} Flex button, which will toggle through the three available modes. The three modes available are shown below.

- Ring mode: normal ring is delivered to the speaker of the phone. The Flex button LED is 'Off'.
- Tone mode: a brief tone signal is sent to the headset. The red LED of the Flex button is 'On'.
- Ring/Tone mode: normal ring is delivered to the speaker and a brief tone is sent to the headset. The green LED of the Flex button is 'On'.

Operation

iPECS Multi-button phone

To assign a Flex button for {ACD Agent Headset Ring Mode Change} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Headset Ring Mode Change} + **[SAVE]**

To select the Ring/Tone Mode manually:

1. Press the {ACD Agent Headset Ring Mode} Flex button to toggle through the Ring/Tone modes. The last mode selected is the active mode.

Conditions

Related WMS Menu

Data Management > Numbering Plan Information > Feature Code > "ACD Agent Headset Ring Mode Change"
> ACD/CTI Information > ACD Group Attribute > "Ring/Tone Mode at Agent Log on"

Related Features

- Handset/Headset Mode
- Log On
- Agent Log Off

Hardware

3.9 Skill based Routing

Description

Each ACD Agent can be assigned a 'Skill level' (1 ~ 255). When a call is received for the group, the iPECS-CM routes the call to the Agent with the highest Skill level that has been idle the longest.

Operation

Conditions

- It is possible to designate a skill level for an ACD Agent when generating agent ID or changing agent ID.
- The Agent must Log On after the change to apply a new Skill level. Otherwise, the previously assigned Skill level is used for the Agent.

Related WMS Menu

Data Management > ACD/CTI Information > ACD Agent Information > “Skill Level”

Related Features

Hardware

3.10 Log Off Call Restriction

Description

Outgoing calls initiated by a Logged ‘Off’ Agent can be restricted with following options through WMS.

- Restrict only calls to outside through trunk
- Restrict all outgoing calls

Operation

Conditions

- If a call is attempted from an Agent location when the Agent is logged ’Off’, error tone is provided.

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > Call Restriction at Agent Log off

Related Features

- Agent Log Off

Hardware

3.11 Inter-Agent Call Restriction

Description

The ACD group can be configured to restrict calls between Agents in the group. Direct and transferred calls from an Agent to another active Agent are restricted separately.

Operation

Conditions

- Inter-Agent call restriction is enabled only when the called Agent is logged on.

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > "Call Restriction between Agents"

Related Features

- Log On

Hardware

3.12 Agent No Answer Service

Description

When an active Agent (logged on and ready) does not answer an ACD call, the configured 'No Answer Service' is applied. No Answer service allows the call to forward to another destination or route to the next Agent. In addition, the Agent can be placed in the 'Not Ready Mode' or 'Log Off' automatically so that calls are not routed to the Agent. A 'Not Ready' Flex button will illuminate Red to indicate the not ready status.

When placed in the Not Ready mode in this way, the Agent must manually change to the 'Ready Mode'.

Operation

Conditions

- If Automatic Work Mode is enabled and the Agent does not answer a call, the No Answer Service is activated and Automatic Work Mode service is not activated.

Related WMS Menu

Data Management > ACD/CTI Information> ACD Group Attribute > “Agent No Answer Option for I/C Call”
> ACD/CTI Information> ACD Group Attribute > “Agent No Answer Forward Destination”

Related Features

- Log On
- Not Ready Mode

Hardware

3.13 Agent Individual Number DND

Description

The iPECS-CM can be configured to restrict calls to an active Agent in the Not Ready Mode or Work Mode. When configured, non-ACD calls to the Agent will receive DND treatment.

Call restriction is set for the Not Ready and Work Mode separately.

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > ACD System Option > “Call Restriction on Not Ready/Work Mode”

Related Features

Hardware

3.14 Agent Answer Announcement

Description

An ACD group can be configured to play a pre-recorded announcement to the caller when an Agent answers the call. After the announcement, the Agent is connected to the call.

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > "Announcement on Agent Answer to I/C Trunk"
> ACD/CTI Information > ACD Group Tone > "Agent Answer Announcement"

Related Features

Hardware

3.15 Agent ACD Call Indication

Description

Agents using an iPECS Multi-button phone can determine the source of a received call. Separate Flex buttons are used to indicate an ACD and non-ACD call. When an ACD call is received, the ACD Call indicator button illuminates, otherwise the non-ACD call Indicator button illuminates.

Operation

To assign a Flex button for {ACD Call Indicator} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Call Indicator} + **[SAVE]**

To assign a Flex button for {Non-ACD Call Indicator} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {Non ACD Call Indicator} + **[SAVE]**

Conditions

- The Feature code for {ACD Call Indicator} must be configured in WMS.

Related WMS Menu

Data Management >Numbering Plan Information > Feature Code> “ACD Call Indicator”
>Numbering Plan Information > Feature Code> “Non ACD Call Indicator”

Related Features

Hardware

3.16 Agent Help Feature

Description

Agents using an iPECS Multi-button phone can request help to supervisor with {ACD Agent Help Request} on conversation state during ACD Log On state. The supervisor who recognizes the agent help request by blinking {ACD Agent Help Request} button can start silent monitoring by pushing the button.

Operation

[Agent] To assign a Flex button for {ACD Agent Help Request} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Help Request} + “ACD Group Representative Number” + **[SAVE]**

[Supervisor/Assistant Supervisor] To assign a Flex button for {ACD Agent Help Request} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Agent Help Request} + **[SAVE]**

1. An agent presses the {ACD Agent Help Request} button on conversation state during ACD Log On state.
2. {ACD Agent Help Request} button on supervisor’s terminal is blinking and Message Wait Indication Ring is alerting.
3. The supervisor presses the {ACD Agent Help Request} button.
4. Silent monitoring feature is automatically activated.

Conditions

- When there are multiple available assistant supervisors and supervisor, the help request is assigned in order of assistant supervisors (the order of registration on WMS), and supervisor.
- When all assistant supervisors and supervisor are busy, the help request is assigned to first assistant supervisor.

- When a help request is assigned to busy assistant supervisor, Mute ring is alerting, {Help Request} message is displayed on LCD, and {ACD Agent Help Request} button is blinking. If the assistant supervisor hangs up the current call to process the agent help request, Message Wait Indication ring is alerting, {Help Request} message is displayed on LCD, and {ACD Agent Help Request} button is blinking on idle state. At that time, the assistant supervisor can do silent monitoring by pressing the {ACD Agent Help Request} button.
- When all assistant supervisors and supervisor are silent monitoring or requested help from other agent, an agent who request help service will hear the error tone.
- When an agent presses the help button during help requesting state, the help request will be cancelled.
- The supervisor, or assistant supervisors have to press the blinking button for silent monitoring on idle state

Related WMS Menu

Data Management >Numbering Plan Information > Feature Code> “ACD Agent Help Request”

Related Features

- Supervisor Silent Monitor

Hardware

4. ACD Supervisor

4.1 Supervisor ACD Group Call Forward

Description

An ACD Supervisor can activate or deactivate Unconditional Call Forward to a predefined destination. When activated by the Supervisor, calls to the ACD group are routed to the destination defined in WMS. An {ACD Supervisor Group Call Forward} Flex button is required.

Operation

iPECS Multi-button phone

To assign a Flex button for {ACD Supervisor Group Call Forward} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Supervisor Group Call Forward} + **[SAVE]**

To activate/deactivate ACD Group Call Forward by Supervisor:

1. Press the programmed {ACD Supervisor Group Call Forward} button.
2. Enter Password if the Password option is enabled. If activating, the LCD will indicate "ACD Group Call Forward" and the Flex button LED illuminates in red. If deactivating, the LCD will indicate "ACD Call Forward Clear" and the Flex button LED turns 'Off'.

Conditions

Related WMS Menu

Data Management
> ACD/CTI Information > ACD Group Attribute > "Service State"
> ACD/CTI Information > ACD Group Attribute > "Supervisor Forward Destination"
> ACD/CTI Information > ACD Group Attribute >"Password Usage on Supervisor Mode Change"
> Extension Information > DN Attribute > "Extension Password"
> Numbering Plan Information > Feature Code > "ACD Supervisor Group Call Forward"
> Extension Information > Terminal Information > "Phone Flexible Button"

Related Features

Hardware

The ACD Supervisor must be equipped with an iPECS Multi-button phone.

4.2 Supervisor Night Service

Description

An ACD Supervisor can change the service mode for the ACD Group. Using the Night mode Flex button, the Supervisor toggles the Service mode between the Day and Night Service mode.

Operation

iPECS Multi-button phone

To assign a Flex button for {ACD Supervisor Group Night Mode} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Supervisor Group Night Mode} + **[SAVE]**

To toggle the Service from the ACD group Supervisor:

1. Press the programmed {ACD Supervisor Group Night Mode} button
2. Enter Password if the Password option is enabled. If activating Night service, ACD Night" displays in the LCD and the Flex button illuminates in red. If deactivating Night service, the LCD shows "ACD Day" and the Flex button LED turns 'Off'.

Conditions

Related WMS Menu

Data Management
> ACD/CTI Information > ACD Group Attribute > "Service State"
> ACD/CTI Information > ACD Group Service State I > "Night"
> ACD/CTI Information > ACD Group Attribute > "Password Usage on Supervisor Mode Change"
> Extension Information > Number (DN) Information> DN Attribute > "Extension" Password
> Numbering Plan Information > Feature Code > "ACD Supervisor Group Night Mode"

Related Features

- Night Service

Hardware

The ACD Supervisor must be equipped with an iPECS Multi-button phone.

4.3 Supervisor Holiday Service

Description

An ACD Supervisor can change the ACD group Service Mode for the group. Using the Holiday mode Flex button, the Supervisor toggles the Service mode between Day and Holiday service mode.

Operation

iPECS Multi-button phone

To assign a Flex button for {ACD Supervisor Group Holiday Mode} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Supervisor Group Holiday Mode} + **[SAVE]**

To toggle the service between Day and Holiday mode from the ACD Supervisor:

1. Press the programmed {ACD Supervisor Group Holiday Mode} Flex button.
2. Enter Password if the Password option is enabled. If activating Holiday mode, “ACD Holiday” is shown in the LCD and the Flex button LED illuminates in red. If deactivating Holiday mode, the LCD shows “ACD Day” and the Flex button LED turns ‘Off’.

Conditions

Related WMS Menu

Data Management
> ACD/CTI Information > ACD Group Attribute > “Service State”
> ACD/CTI Information > ACD Group Service State > “Holiday”
> ACD/CTI Information > ACD Group Attribute > “Password Usage on Supervisor Mode Change”
> Extension Information > Number (DN) Information > DN Attribute > “Extension Password”
> Numbering Plan Information > Feature Code > “ACD Supervisor Group Holiday Mode”

Related Features

- Holiday Service

Hardware

The ACD Supervisor must be equipped with an iPECS Multi-button phone.

4.4 Supervisor Overflow Count Control

Description

The ACD Supervisor can change the Overflow Call count. The Overflow Call count determines the number of calls in queue required to cause Overflow of calls from the group. In addition, when the Supervisor only needs to view the Overflow Call Count, an Overflow Call Count display Flex button can be assigned. With this Flex button, the Supervisor can only view the count.

Operation

iPECS Multi-button phone

To assign a Flex button for {ACD Supervisor ACD Q Overflow Count Change} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Supervisor ACD Q Overflow Count Change} + **[SAVE]**

To change the Overflow Call count:

1. Press the programmed {ACD Supervisor ACD Q Overflow Count Change} Flex button.
2. Enter Password if the Password option is enabled. The LCD displays the count as "Overflow Q count (0~500) 500".
3. Enter the desired number of waiting calls (0 ~ 500). If less than three digits are entered, press the '#' dial pad button as an end of entry button. For example, to enter a call count of 7, enter 7# or 007.

To Display Waiting Call Count

To assign a Flex button for {ACD Supervisor Display Q Wait Count} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code {ACD Supervisor Display Q Wait Count} + **[SAVE]**

To view the Overflow Call Count:

1. Press the programmed {ACD Supervisor Display Q Wait Count} Flex button. The current count of waiting calls displays in the LCD.

Conditions

- The Overflow Call Count can be set by the ACD Supervisor as well as in WMS.

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > "Overflow Call Count"
> ACD/CTI Information > ACD Group Attribute > "Password Usage on Supervisor Mode Change"
> Extension Information > Number (DN) Information > DN Attribute > "Extension Password"

> Numbering Plan Information > Feature Code > “ACD Supervisor ACD Q Overflow Count Change”
> Numbering Plan Information > Feature Code > “ACD Supervisor Display Q Wait Count”

Related Features

- Overflow Service

Hardware

The ACD Supervisor must be equipped with an iPECS Multi-button phone.

4.5 Supervisor Silent Monitor

Description

Any ACD group member, including members of another group, can monitor the conversation of other active ACD group members. Once activated, the monitor will continue until the monitored Agent returns to idle. In that case, audio from the idle Agent is no longer delivered to the monitoring user and the Monitor goes to the ready state. When the monitored Agent places or receives a new call, audio is again delivered to the monitoring user.

The monitored Agent has no indication of the silent monitoring.

Operation

iPECS Multi-button phone
To assign a Flex button for {ACD Supervisor Silent Monitor} operation using the Extension User program:

- **[PGM]** + {FLEX} + Button Feature Type (2) + Feature Code { ACD Supervisor Silent Monitor} + **[SAVE]**

To activate Silent Monitor:

1. Press the programmed {ACD Supervisor Silent Monitor} Flex button
2. Enter the number of the Extension to monitor. If the Agent to be monitored is idle, “MONITOR READY xxxx” displays indicating that monitoring of Extension xxxx is ready. If the Agent is on an active call, “MONITOR ACTIVE xxxx” is displayed and the Supervisor receives audio from the Agent and the connected party.

To deactivate Silent Monitor:

1. Press the programmed {ACD Supervisor Silent Monitor} Flex button.

Conditions

- When a monitored Agent terminates a call, the Supervisor display returns to the 'Monitor Ready' message.
- Silent Monitor automatically terminates if the monitored Agent logs off the ACD group.
- The monitoring Extension need not be logged on to an ACD group.
- All conversations from the monitored Agent are monitored regardless of the DN used for the call because this feature works based on M-DN.
- In some regions, monitoring a call without notification may be illegal.

Related WMS Menu

Data Management > Numbering Plan information > Feature Code > "ACD Supervisor Silent Monitor"

Related Features

Hardware

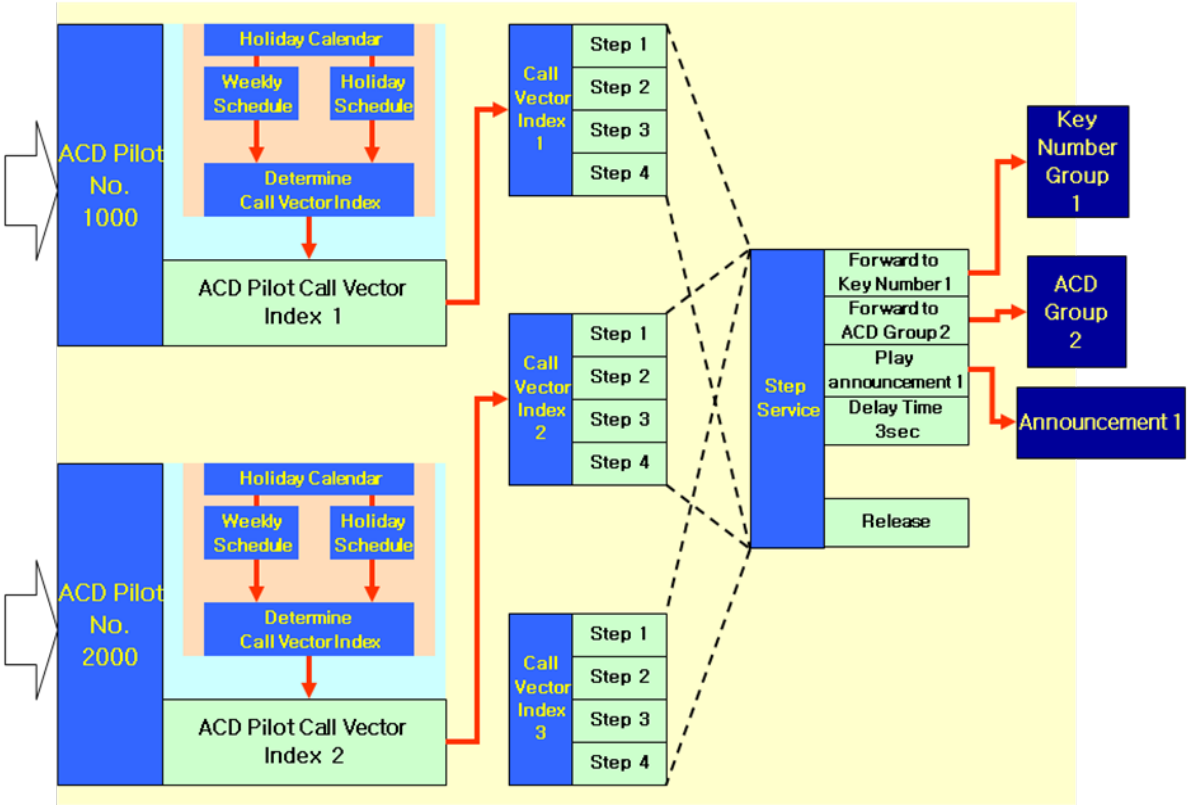
The ACD Supervisor must be equipped with an iPECS Multi-button phone.

5. Call Vector

5.1 Call Vector Service Overview

Description

Incoming calls to an ACD Pilot number are handled with the services defined for the ACD Pilot Call Vector in WMS. The Call Vector defines a set of sequentially applied services assigned for the vector as shown in the figure below.



The Call Vector index is assigned in the Weekday and Holiday time tables allowing different routing based on the time-of-day, day-of-week and holidays.
Services available for a Call Vector include:

- Forward to Key Number
  The call routes to the specified key number group. If no Agent is available, the next service step executes. If successfully routed, the next step in the Call Vector service is ignored. The Key number is assigned in Type Information field for the vector.
- Forward to ACD Group
  The call routes to the specified ACD group. If no Agent is available, the next service step executes. If successfully routed, the next step in the Call Vector is ignored. The ACD group number is assigned in Type Information field for the vector.
- Forward to ACD Group with Queuing
  The call routes to the specified ACD group. If no Agent is available, the call queues to the group until the queue timeout. After queue timeout, the next service step executes. If successfully routed, the next step in the Call Vector is ignored. The ACD group number is assigned in the Type Information field for the vector.

- Play announcement
  The call routes to the specified announcement, which is played to the caller. After the announcement is complete, the next service step executes. The announcement index is assigned in Type Information field for the vector.
- Delay time (sec)
  Routing of the call is paused for the specified time. After the time, the next Call Vector service step executes. The delay time, in seconds, is assigned in Type Information field for the vector.
- Forward to specific number
  The call routes to the specified destination. If the destination is not available, the call disconnects. If the call routes successfully, the next service step is ignored. The Forward to destination is assigned in Type Information field for the vector.
- Release
  The call is released immediately. The Type Information for the vector is not required.

Relevant capacities of the iPECS-CM:

- Maximum Pilot No: 200
- Maximum Call Vector No: 100
- Maximum Weekday Table No: 20
- Maximum Holiday Table: 20
- Maximum step of Call Vector Service: 20

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > ACD Pilot Call Vector

Related Features

Hardware

5.2 ACD Pilot Call Vector Schedule

Description

The active ACD Pilot Call Vector is subject to the Holiday calendar and the ACD Pilot Weekday and Holiday Schedule Tables. Call Vectors are assigned in the Weekday and Holiday Tables allowing different vectors to be applied based on the day-of-week and time-of-day as well as the Holiday calendar. The Weekday and Holiday Tables have 20 entries each. For each Weekday Table entry, up to 30 Call Vectors indices can be entered. For the Holiday Table, up to 20 Call Vector indices can be entered.

In addition to the vectors assigned in the Weekday and Holiday tables, a default vector is defined, which is used in case a scheduled vector is not assigned or is not valid.

Operation

Conditions

- The time-of-day is defined using a 24-hour clock where 00 (midnight) is the start time.
- If a Weekday or Holiday Table is not defined, the default Call Vector is employed to route the call.

Related WMS Menu

Data Management	> ACD/CTI Information > ACD Pilot
	> ACD/CTI Information > ACD Pilot Weekday Table
	> ACD/CTI Information > ACD Pilot Holiday Table
System Management	> System Time Zone

Related Features

Hardware

6. CTI

6.1 CTI Call Processing

Description

When a CTI server is employed, the Command, Response and Event messages as well as related parameters are used by the iPECS-CM to route the call. The Command, Responses and Events used for CTI call processing are described in section 7.

Operation

Conditions

Related WMS Menu

Related Features

- CTI Protocol

Hardware

CTI server

6.2 Global Call ID

Description

When VoIP (Voice over IP) trunks are used to network independent ACD groups, the Call ID in the VoIP call set-up message is sent to all groups. In order to provide a unique ID for each group, a Global ID (up to 14 IDs) can be configured for each CTI system that controls call routing for a group routing.

When Global IDs are used, the VoIP Call Id consists of the Global ID assigned to CTI system and a sequentially assigned number for each call leg. This provides the unique ID between networked ACD group calls.

Operation

Conditions

Related WMS Menu

Data Management > Trunk Information > Outgoing Route Information> Outgoing Route Options> “CTI Global Call ID”
> Trunk Information > Incoming Route Information> Incoming Route Options> “CTI Global Call ID”

Related Features

Hardware

6.3 PRI UUI

Description

The iPECS-CM is configured to employ the UUI (User-to-User Information) element in the PRI Call Set-up message. For incoming calls, iPECS-CM forwards the UUI to the CTI server in the CTI event message. For outgoing calls, the user information received from the CTI server in the CTI command is sent in the UUI element of the PRI call Set-up message

Operation

Operation is automatic based on settings.

Conditions

- The maximum length of the UUI data field is 128 Byte.

Related WMS Menu

Data Management > Trunk Information > Outgoing Route Information > Outgoing Route Options > “CTI User Info (PRI)”
> Trunk Information > Incoming Route Information > Incoming Route Options > “CTI User Info (PRI)”

Related Features

Hardware

6.4 Work Mode Routing Restriction

Description

When a CTI server requests the system to route a call to an Agent in Work Mode, the iPECS-CM can be configured to restrict such routing and return a routing error message to the CTI server.

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > CSTA Phase II CTI System Configuration > "CTI Routing to Work Mode Agent"

Related Features

Hardware

6.5 DNIS (Dialed Number Identification Service)

Description

DNIS is a carrier service that provides the number dialed by the external party. When DNIS use is enabled for ACD operation, the dialed number received by iPECS-CM is associated with the CTI event in the message sent to the CTI server.

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > CSTA Phase II CTI System Configuration > DNIS Use

Related Features

Hardware

6.6 RBT Restriction upon Trunk OG Divert

Description

When an outgoing call is transferred to an Agent from an Automatic Dialer or similar device, Ringback tone is provided to the external party until the call is answered. If desired, the Ringback tone can be disabled and the external party will receive silence until answered by a group announcement or an Agent.

Operation

Related WMS Menu

Data Management > ACD/CTI Information > CSTA Phase II CTI System Configuration > "RBT Usage on Trunk O/G Divert"

Conditions

Related Features

Hardware

6.7 CSTA Link Check

Description

The iPECS-CM can be configured to check the status of the link to the CTI server periodically. iPECS-CM sends a CTI System Status message at periods from 5 to 240 seconds as configured in WMS. If no response is received, iPECS-CM will retry the link check. If no response is received after the retry count assigned in WMS, the link is considered failed and disconnected.

Operation

Conditions

- This feature is available only when supported by the CTI Server.

Related WMS Menu

Data Management > ACD/CTI Information > CSTA Phase II CTI System Configuration > "CTI Link Check Cycle"

> ACD/CTI Information > CSTA Phase II CTI System Configuration > "CTI Link Check Count"

Related Features

Hardware

6.8 CTI Routing Fail Rerouting

Description

When the CTI server sends a CTI Divert command and the call cannot be successfully routed, the ACD group can be configured to reroute the call to a Divert Failure destination in WMS.

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute> "Rerouting Usage on Divert Failure"
> ACD/CTI Information > ACD Group Attribute> "Rerouting Destination on Divert Failure"

Related Features

Hardware

6.9 Emergency Rerouting (ACD/UCD)

Description

When a CTI Link fails, calls to the corresponding ACD group can be configured to route to another ACD group. Emergency rerouting can be performed automatically or manually. Automatic emergency rerouting employs the CSTA Link Check feature, which may create a delay in rerouting due to the detection time and count configured for the CTI Link Check.

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > ACD Group Attribute > “Rerouting Usage on CTI Link Failure”
> ACD/CTI Information > ACD Group Attribute > “Rerouting Destination on CTI Link Failure”

Related Features

Hardware

6.10 CTI Routing Point

Description

When a CTI server is employed with ACD groups, iPECS-CM provides the call queue and announcements, while the CTI server must provide the route destination to the iPECS-CM in a CTI routing command (CTI Divert command).

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information> ACD Group Attribute > “CTI Call Distribution Usage Option”

Related Features

Hardware

6.11 CTI Monitor Status Display

Description

This feature displays the status of a CTI server. Numbers of ACD subscribers or ACD key number may be displayed in monitor status.

Conditions

- If the Monitor Start command is received from CTI server, CTI monitor status is changed to “Monitor on” and CTI events are issued to CTI server.
- If the Monitor Stop command is received from CTI server, CTI monitor status is changed to “Monitor off” and CTI events are not issued to CTI server.

Related WMS Menu

Data Management > ACD/CTI Information> ACD Subscriber Attribute> CTI Monitor Status
> ACD/CTI Information > ACD Group Attribute> CTI Monitor Status

Related Features

Hardware

6.12 CTI Link Display

Description

The status of the link to a CTI server can be viewed in WMS.

- ”Connect” is displayed when CTI server is connected.
- ”Not Connected” is displayed when CTI server is not connected.

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information > CSTA Phase II CTI Interface> “Server Connection Status”

Related Features

Hardware

6.13 Multi CTI Server Interface

Description

Multiple CTI server interfaces (up to 5) are supported with three (3) types of configurations.

- Load Sharing – When more than two CTI servers provide CTI service to an ACD group and a subscriber, the load can be shared through simultaneous access to iPECS-CM.
- Hot Swap (Active-Active) – When more than two CTI servers provide CTI service to the same ACD group and subscriber, hot swap is possible through simultaneous access to iPECS-CM.
- Warm Swap (Active-Standby) – Simultaneous access to the iPECS-CM is restricted to a CTI server. When the connection to the active CTI server is released, the standby CTI can be connected.

Operation

Conditions

Related WMS Menu

Data Management > ACD/CTI Information> CSTA Phase II CTI Interface > “CTI Multi Server Option”
> ACD/CTI Information > CSTA Phase II CTI Interface > “Server IP Address”, “Server Port Number”

Related Features

Hardware

7. CTI Protocol

iPECS-CM supports CSTA Phase II Protocol that must be employed by any external CTI Server to share command/events with the iPECS-CM. For iPECS-CM, CTI is configured in three parts or components:

- CTI server
- CSTA Phase II Parameter
- CSTA Phase II PICS (Protocol Implementation Conformance Statement)

7.1 Interface

Description

The physical link between iPECS-CM and a CTI server employs a 10/100 BaseT connection over TCP/IP port 2555. Each session is controlled in accordance with ISO Remote Operations Association Control Service Element Version 1 (ref: ISO 8649 & 8650). The TCP buffer can accommodate a maximum packet length of 4096 bytes.

Encoding of a device type is displayed in the chart below.

DEVICE	ENCODING
Pilot Group (ACD, UCD)	Number Digits
Internal Agent	Number Digits
“other” device	Number Digits
Dialed digits (external calling Party and external called party)	Number Digits Explicit Public
Trunk ID	Device Number

Operation

Conditions

Related WMS Menu

Related Features

Hardware

7.2 CSTA Phase II Parameter

Description

The iPECS-CM supports the following CSTA Phase II parameters.

PARAMETER	MAXIMUM LENGTH (BYTES)	VALUE
Call ID (part of ConnectionID)	4	0x00000001~ 0xEFFFFFFF
MonitorCrossRefID	2	0x0001 ~ 0x9999 (Hex)
ApplicationCorrelator	128	
PublicTON	16	
NumberDigits	16	
DeviceNumber	4	
AgentID	6	
ROSE InvokeID	4	0x000001~ 0xffffffff
Number In Queue	2	

Operation

Conditions

Related WMS Menu

Related Features

Hardware

7.3 CSTA Phase II PICS

The iPECS-CM supports the CSTA Phase II PICs listed below.

1. Alternate Call
2. Answer Call
3. Clear Connection
4. Conference Call
5. Consultation Call
6. Divert Call
7. Hold Call
8. Make Call
9. Query Device
10. Reconnect Call
11. Retrieve Call
12. Send DTMF Tones
13. Set Feature
14. Single Step Transfer
15. Transfer Call
16. Conference Event
17. Connection Cleared Event
18. Delivered Event
19. Diverted Event
20. Established Event
21. Failed Event
22. Held Event
23. Network Reached Event
24. Originated Event
25. Queued Event
26. Retrieved Event
27. Service Initiated Event
28. Transferred Event
29. Agent Logged On Event
30. Agent Logged Off Event
31. Agent Ready Event
32. Agent Holiday Event
33. Agent Working After Call Event
34. Agent Busy Event
35. Do Not Disturb Event
36. Forwarding Event
37. Auto Answer Event
38. Speaker Mute Event
40. System Status
41. Change Monitor Filter
42. Monitor Start
43. Monitor Stop