Technical Integration Brief

# Delivering Enterprise Level Outbound Dialing—Melita's Conversations Integrated With Cisco IP Contact Center and Cisco Intelligent Contact Management

## Overview

To help contact centers build more successful customer relationships and manage multiple channels of communication, Melita International has integrated the Melita Conversations system with Cisco's IP Contact Center and Cisco's Intelligent Contact Management. The combination of these two powerful technology solutions enables customer contact to become more productive and efficient. This integration increases the efficiency of the contact center by providing tools to contact center managers to meet service levels goals while maintaining maximum agent efficiency.

## Cisco Overview

The Cisco IPCC Enterprise Edition is a strategic platform that enables customers to move into the next phase of customer contact—beyond today's Contact Center to a Customer Interaction Network. The Customer Interaction Network is a distributed, IP-based customer service infrastructure that comprises a continuously evolving suite of innovative, multi-channel services and customer relationship management applications. These services and applications provide enhanced responsiveness and streamlined customer exchanges to help your organization deliver superior customer service. A Customer Interaction Network extends customer service capabilities across the entire organization, giving your business a more integrated and collaborative approach to customer satisfaction.

An integral part of Cisco AVVID (Architecture for Voice, Video and Integrated Data), Cisco IP Contact Center (IPCC) Enterprise Edition delivers intelligent contact routing, call treatment, network-to-desktop computer telephony integration (CTI), and multi-channel contact management over an IP infrastructure. By combining multi-channel automatic call distributor (ACD) functionality with IP telephony in a unified solution, Cisco IPCC Enterprise (formerly Cisco IP Contact Center) enables companies to rapidly deploy a distributed contact center infrastructure.

Cisco IPCC Enterprise Edition segments customers, monitors resource availability, and delivers each contact to the most appropriate resource anywhere in the enterprise. The software profiles each customer using contact-related data such as dialed number and calling line ID, caller-entered digits, data submitted on a Web form, and information obtained from a customer profile database lookup. At the same time, the system knows which resources are available to meet the customer's needs based on real-time conditions (agent skills and availability, interactive voice response [IVR] status, queue lengths, and so on) continuously gathered from various contact center components.

Cisco IPCC Enterprise provides a state of the art VoIP contact center solution that allows customers to seamlessly integrate inbound and outbound voice applications with Internet applications including real-time chat, Web collaboration and e-mail. This integration allows for unified capabilities, enabling a single agent to support multiple interactions simultaneously regardless of the communications channel the customer has chosen. Since each interaction is unique and may require individualized service, Cisco provides contact center solutions to manage each interaction based on virtually any contact attribute.

Furthermore, Cisco can bridge the gap between TDM and IP infrastructures, providing a seamless integration of voice, chat, e-mail, and Web collaboration applications over both of these technology platforms. This allows customers to preserve the value of their existing investments in call center products such as ACDs, IVRs, PBXs, etc. while leveraging Cisco's wide range of solutions to support the same contact center requirements in a converged network environment—continuing the evolution towards a true Customer Interaction Network.

## Conversations Overview

Melita's Conversations system is an industry leading outbound predictive dialing solution. The Conversations suite consists of one or more Mixed Media Servers (MMS), a Universal Server, one or more Command Post administrative workstations and agent desktop software options. The Cisco Bridge module runs on the Universal Server and handles all messaging between the Conversations Suite and Cisco IPCC. The Universal Server is responsible for agent reporting, and initiating outbound campaigns. The Universal Server initiates outbound predictive dialing based upon individual agent pacing algorithms. The MMS is the telephony platform used for launching the outbound calls. The MMS is responsible for dialing calls and classifying calls to ensure only live calls are routed to agents.

### Solution Benefits

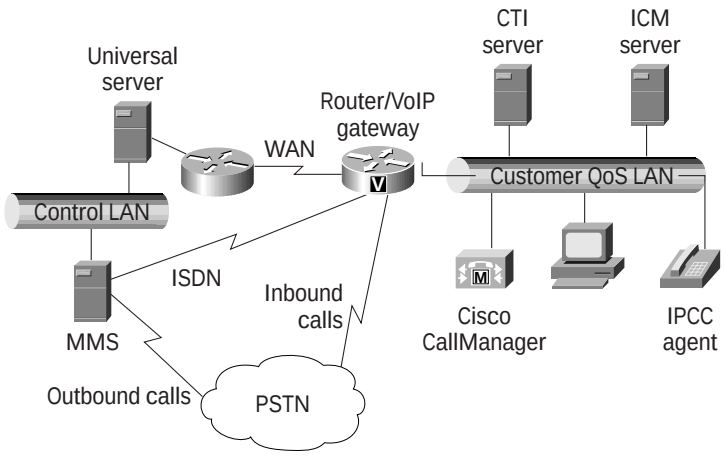
- Maximizes agent productivity by allowing designated blended agents to receive outbound calls during slow inbound activity
- Allows Cisco IPCC/ICM to maintain required service levels by moving outbound agents to inbound calls during peak inbound activity
- Blends agents based upon corporate goals and objectives, not merely call volume
- Provides enterprise-wide resource evaluation, and enterprise-wide resource routing based upon the ICM scripts.

### Solution Features and Capabilities

- Uses ICM scripting to move agents from outbound duty to inbound duty to receive inbound calls
- Provides consolidated agent information within the ICM HDS reporting database
- Ability to request multiple resources for a call
- Ability to cancel movement of agents if demand no longer exists

## Integration Architecture

FIgure 1: Cisco-Melita architecture




Cisco Intelligent Contact Manager (ICM): provides enterprise-wide intelligent contact management by distributing voice and data from multiple channels to enterprise resources such as ACD, IVR, and desktop applications.

Cisco CallManager (CCM): provides traditional PBX telephony features and functions to packet telephony devices. Installed on a server-class PC, CCM software provides basic call processing, signaling, and connection services to Cisco IP Phones, voice over IP gateways, and software applications.

CallManager Peripheral Gateway (PG): provides a connection from CallManager to the ICM. The PG informs the ICM of events at the CallManager and provides a means for controlling the CallManager.

Cisco CTI Server: provides the connection to the agent's desktop application. This application allows the agent to perform ACD functions (log in, available, wrap up, etc.) as well as call control functions (answer, hold, transfer, release) from their desktop PC.

Cisco IP-IVR: provides announcements, prompting, gathering of caller entered digits, and a queue point for the ICM to provide call treatment to callers while all agents are busy.

Cisco VoIP Gateways: The appropriate Cisco voice gateway that meets the customer's needs.

Cisco IP Phones: the Cisco IP Phone (7960, 7940, 7910)

### Flex Configuration with IPCC

The Conversations Universal Server communicates directly with the ICM CTI Server. The Conversations system uses the Cisco CTI Server interface to log agents on/off the CallManager and to receive the CallManager events. The CTI Server interface is also used to receive

error messages and query agent availability. The Conversations Universal Server communicates with the Application Gateway on the Cisco ICM Central Controller, allowing the Cisco ICM Server to request agents from the Conversations system based on specific business needs and service levels defined by the customer.

### Integration with Cisco IPCC

The IPCC/Conversations integration utilizes the Cisco CTI Server Interface Specification. The protocol is compatible so it will work with Cisco IPCC versions 4.6 and later. This interface will be used for all Conversations telephony commands and PBX/ACD events. It can used to request the movement of agents between inbound and outbound on an enterprise level.

### Consolidated Agent Reporting

The solution provides a real-time agent state information feed to be utilized by the Historical Data Server. Agent state information is written to the Historical Data Server, allowing for the Cisco reporting tools to utilize this data to generate outbound reporting for blended agents.

| Cisco Components | Melita Components | 3rd-Party Components |
|---|---|---|
| Intelligent Contact Manager (ICM 4.6) | Conversations 5.00 | None |
| CallManager (CCM 3.0+) | | |
| Peripheral Gateways (PG) | | |
| CTI Server | | |
| IP-IVR | | |
| VoIP Gateway AS5300 | | |
| IP Phones | | |

### Integration Limitations

Each platform uses it's own agent profile. The inbound agent profiles are defined on the IPCC and the outbound agent profiles are defined on the Conversations system.

## Call Flow

1. A customer dials an enterprise toll-free number to make an account inquiry.
2. The network sends a route request to the ICM via the network interface controller (NIC), which contains the dialed number (DN) and the calling line ID (CLID).
3. The ICM invokes a user-defined routing script to request a resource from a particular skill group, however all agents assigned to that skill are unavailable. The user-defined script requests a number of agents with the skill from the Conversation's Server based upon Service Level criteria.
4. The Conversations Server logs the agents out of the outbound campaign, and logs them into the desired inbound campaign.
5. The ICM invokes a user-defined script to select the most appropriate resource and instructs the network to route the call to that destination. Concurrently, the ICM sends all call data to the PG.
6. A Real-time interface transmits the agent states for all outbound agents to Cisco HDS system for consolidated agent reports.

## Implementation

Deployment of ICM and the Conversations system involves the installation of the following components, after which the ICM CTI Server is configured.

- ICM 4.6 Server or later including the ICM CTI Desktop. See *ICM Release Notes* for details.
- Conversations Servers and Melita Open Client Access (MOCA) or Magellan desktop application.

## System Requirements

### Hardware and Software Requirements

Hardware and software requirements for the ICM Client (CTI Desktop) and ICM Server (4.6 and above) are set forth in the *ICM Release Notes* and do not change with the introduction of Conversations.

Hardware and Software requirements for the integration are set forth in the *Conversations Installation Manual.*

### Networking Requirements

Socket based interface over TCP/IP is required between the ICM Client and ICM Server, and between the ICM Client and the Conversations system.

## Installation Process

### Prerequisites

- IPCC Client Application, ICM Script that defines the business rules for blending agents.
- ICM Server, and the components necessary for IPCC.
- Conversations 5.00 installed.
- Melita Open Client Access (MOCA) or Magellan desktop application.

### Skill Requirements

It is assumed that the person doing installation and configuration of IPCC with integration to Conversations possesses a basic understanding and knowledge of the contact center workflow model. This person must also have administrator privileges for ICM Enterprise Application.

### Installation Process

Refer to the *Conversations User's Guide* and the *ICM Scripting Guide* for complete installation and configuration instructions.

This integration is part of the core Conversations product. The only unique installation requirement is for the Field Service Engineer to designate Cisco as the ACD/PBX.

### Customization

The customer's business requirements determine the ICM configuration and customization requirements. Additional customization requirements for this integration are documented in the *Conversations for ICM User's Guide.* The customer's business requirements also determine the Conversations configuration and customization requirements.

### Ongoing Administration

The Conversations Command Post allows system administrators to configure and monitor the operations of the Conversations system and agents. Updated versions of the ICM Client may require Conversations updates to the integrated application.

## Availability

The Cisco-Conversations 2000 IP-based contact center solution requires the following Cisco components:

- Cisco IPCC version 4.6 or later
- Cisco HDS Reporting Suite

These components are currently available and licensed through Cisco Systems.

The IPCC-Conversations 2000 IP-based contact center solution requires the following Melita components:

- Conversations version 5.00
- Flex Agent Option for 5.00 or later
- ICM Bridge for 5.00 or later

These components are currently available and licensed through Melita International.

## Resources

### Training

Training is provided via Melita's Education Services group. The following courses are available:

- EE 1051 Conversations System Fundamentals Workshop
- EE 1030 Introduction to Magellan Programming

In addition, consulting is available from the Melita Professional Services Organization on an hourly basis in the following areas:

- ICM Script Verification
- CTI Configuration Verification
- MOCA Development Assistance
- Magellan Desktop Development

### Support

This solution is supported via Melita's Global Support Center.

### Documentation

For more information on Conversations, please refer to the following documentation available from Melita International, Inc.

- *Conversations System Administrator's Manual*, version 5.00

### Additional Resources

To learn more about Cisco Contact Center Solutions, including Cisco Intelligent Contact Management and Cisco IP Contact Center, please visit http://www.cisco.com/go/cc.

To learn more about Melita, please visit http://www.melita.com.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