Cisco Systems/Eyretel

Overview

This document describes the integration between Cisco Systems IP Contact Center (IPCC) and Eyretel's MediaStore^{IP}.

Integrating the Eyretel MediaStore^{IP} application into the Cisco IP Contact Center enables robust multimedia contact recording and analysis. The scalable solution is designed to function in diverse topologies and allows for up to one hundred percent voice recording in single or multi-site contact centers. This solution addresses markets where recording must be performed for liability or compliance purposes while also enabling contact center's desire to improve their operations by analyzing and understanding agent performance and the Customer Experience. By integrating with the Cisco IPCC the Eyretel solution is capable of tracking the customer's experience from cradle to grave as they traverse multiple agents or sites. The solution is fully integrated with Eyretel's Contact Center product suite to provide a powerful and scalable analysis solution to Cisco powered call centers.

Cisco Systems Overview

Cisco IPCC is an automatic call distributor (ACD) alternative based on the Cisco Architecture for Voice, Video, and Integrated Data (AVVID). Cisco IPCC provides intelligent call routing, network-to-desktop computer telephony integration (CTI), interactive voice response (IVR) integration, real-time and historical reporting, and multimedia contact management to contact center agents over an IP network. Cisco IPCC enables rapid deployment of contact centers and enables businesses with legacy ACDs to evolve their existing call centers to virtual multimedia contact centers.

The Cisco IPCC solution is based on the proven products: Cisco CallManager and Cisco Intelligent Contact Management (ICM) software. Cisco CallManager provides the location independent public branch exchange (PBX) capabilities, while Cisco ICM provides the virtual ACD features. With the Cisco IPCC solution, enterprises can build virtual contact centers and can take advantage of IP transport to extend the boundaries of the contact center to include branch and home offices.

Cisco IPCC integrates easily with legacy call center platforms and networks, enabling a contact center to continue to leverage its investments in legacy systems while providing a smooth migration path to an IP infrastructure. Whether your company is expanding an existing operation or establishing its first contact center, the Cisco IPCC solution can help you realize the cost and performance benefits of converged network at your pace. Cisco IPCC is designed for implementation in single-site and multi-site contact centers as well

as service provider hosting environments. Specific capabilities include intelligent contact routing, automatic call distribution (ACD), network-to-desktop computer telephony integration (CTI), interactive voice response (IVR) Integration, and real-time and historical reporting.

Eyretel Overview

Eyretel is a leading global developer and supplier of customer contact recording and analysis solutions across a range of media. Eyretel's products are designed to enable companies to optimize their customer relationship management. These companies are able to generate additional revenue opportunities, improve profitability, enhance customer retention, reduce staff turnover and achieve greater customer intimacy.

Since being founded in 1991 Eyretel has grown rapidly through pioneering the use of digital recording & analysis technology. They are now a leading provider of Contact Center CRM solutions in all major geographical markets. The increasing proliferation of electronic media is driving the need to implement CRM solutions. Eyretel develops, supplies and implements software and hardware that allows the complete recording and detailed analysis of customer communication and interaction, such as telephone calls, web chat, e-mail and desktop computer activity.

Integration Overview

The Eyretel MediaStore^{IP} application receives telephony VLAN packets from SPAN ports defined on the Cisco switches and then decodes the Cisco SKINNY protocol to perform recording control and data tagging. This integration allows MediaStore^{IP} to function in any environment and makes the system extremely easy to implement. The voice recordings can be stored on the customer's preferred media and are available for secure reply through a browser.

Cisco Components

- Cisco IPCC (ICM version 4.5 or later)
- Cisco Call Manager

Eyretel Components

- MediaStore^{IP} application for recording/network interface
- Unify Middleware for system integration
- Web Portal Application for call search and replay via a web browser

3rd Party Components

- Microsoft Windows Server 2000
- Microsoft Internet Information Server
- Microsoft SQL Server 2000

Integration Architecture

The Eyretel MediaStore^{IP} application receives telephony VLAN packets from SPAN ports defined on the Cisco switches and then decodes the Cisco SKINNY protocol to perform recording control and data tagging. MediaStore^{IP} can be configured to record calls that involve external parties only or it can be configured to record all call activity at individual extensions including internal and external calls.

The system also has the ability to receive event notification from the Cisco IPCC to control recording as well as to provide additional data about the calls to be recorded. The application resides on a standard Windows 2000 server and utilizes the customer's existing infrastructure for recording storage and archival. Replay is achieved via a standard web browser interface.

MediaStore^{IP} has been designed to function in diverse network topologies from single locations to multiple sites that require centralized reporting or storage. This architectural flexibility allows MediaStore^{IP} to address virtually all customer network designs as well as their unique business needs. The MediaStore^{IP} is fully compatible with Eyretel's TDM recording solutions that allow for seamless presentation of recorded interactions from diverse technologies.

MediaStore^{IP} also leverages Eyretel's existing product suite to provide comprehensive agent quality assurance, data mining/visualization and Customer Experience Management.

Call Flow

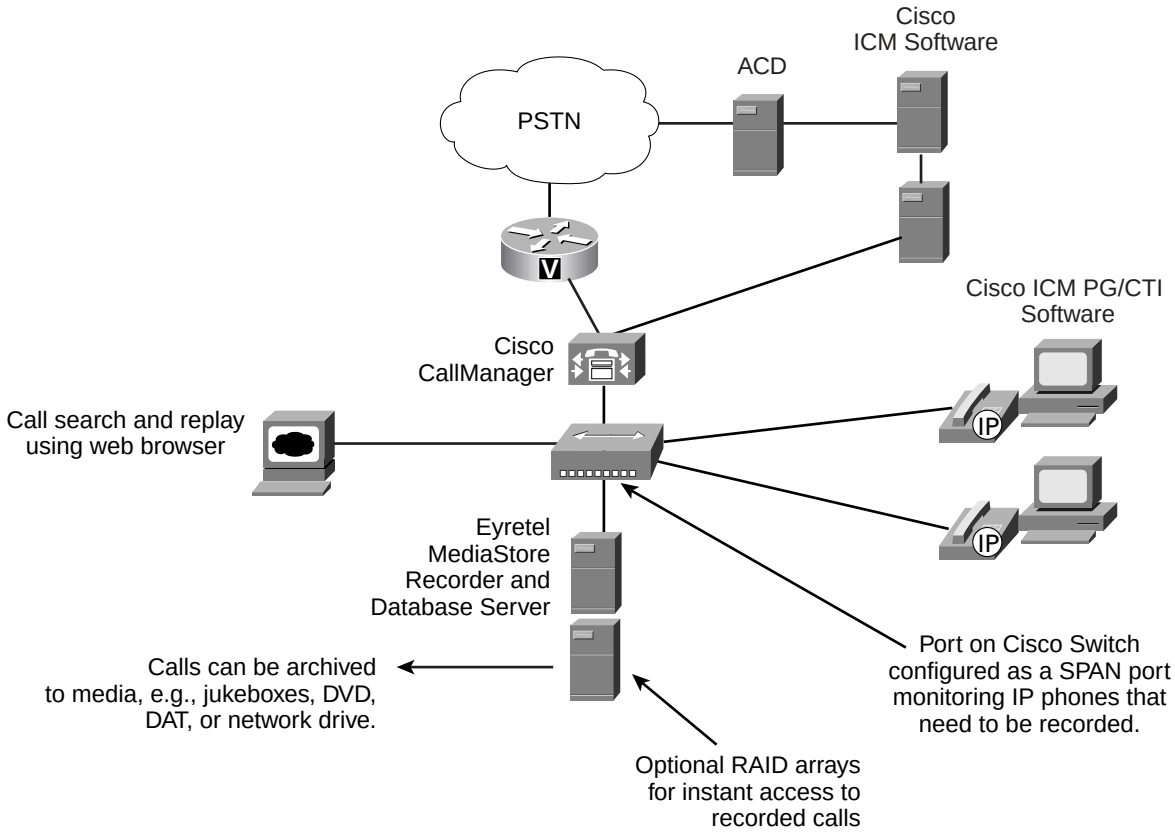
The MediaStore^{IP} solution can be implemented in all customer environments. Depending on the customer's unique topology there may be a need to implement multiple recorders based on the customer's business needs. These defining needs could be situations like:

- Centralized trunking, storage or reporting
- Recording internal (station to station) calls
- Multisite call tracking and recording
- Mixed technology environments (TDM & VoIP)

MediaStore^{IP} has been architected with these considerations in mind and can be implemented appropriately.

Call Flow 1

Figure 1 A single/multi-site deployment of Cisco ICM/IPCC with Eyretel components. The Cisco ACD/CallManager-, IVR-, and CTI Peripheral Gateways (PG) are shown residing on the same physical server.



1. In the above example a PSTN call would enter the Cisco environment via a gateway.
2. The IPCC modules would control the destination of the call and route it appropriately.
3. Once the call ends up at an agent's phone and that phone is included in the SPAN, copies of the voice traffic will be delivered to the SPAN port which MediaStore^{IP} is connected to.
4. In its simplest implementation the MediaStore^{IP} detects the call in progress and filters through the packets decoding the Skinny protocol to create files on the storage media that contain the audio and detail of the call. More realistically, the MediaStore^{IP} would receive event information from the ICM Peripheral Gateway that would allow the MediaStore^{IP} to utilize its internal business rules to control the recording process. This logic can include capabilities such as record on demand, random recording, recording based on CRM data (i.e. Gold Customer) or for any other business reason.
5. Throughout the duration of the call the ICM PG is feeding event and user data information to MediaStore^{IP}. This information is used to build a rich context interaction record about the call that can include telephony events like hold, transfer, conference, etc. This data is utilized as criteria for Eyretel's other applications to locate calls that have particular business value.
6. Once the recording is complete, the MediaStore^{IP} application will apply the business rules to determine what to do with the call (i.e. compress and store, feed to speech recognition, etc.)
7. Replay is achieved via a browser based interface which allows for searching of calls based on numerous criteria (date, time, extension, CLID, etc.)

Implementation

System Requirements

Hardware requirements:

- Minimum: PIII 800MHz, 256MB, 10GB, PCI 10/100Mbps Ethernet card
  30 concurrent recordings, 1–5 replay sessions
- Recommended: PIII 1GHz 512MB, 30GB RAID, PCI 10/100Mbps Ethernet card
  60 concurrent recordings, 1–5 replay sessions

Software requirements

- Microsoft Windows 2000 Server
- Microsoft SQL Server 2000
- Microsoft Internet Information Server

Networking requirements

- Connectivity via SPAN port

Installation Process

Skill requirements

- Eyretel certification
- Cisco switch certification

Installation process

- Load software
- Define SPAN ports
- Make physical connection
- Build business rules

Customization

Depending on the customer environment there are numerous application customizations available. These customizations range from basic recording control (i.e. Stop and Start recordings) to complex, rules driven recordings with third party application integration. Customization is achieved through Eyretel's GUI and script driven middleware application, Unify.

Ongoing Administration

The primary administration responsibility involves maintaining the archives of recordings. Depending on the customer environment this could involve changing media to accommodate additional recordings. Other administrative tasks include adding users and selecting which extensions to record.

Availability

- MediaStore^{IP} is compatible with all Cisco Call Managers version 3.0 for IPCC or higher.
- MediaStore^{IP} started shipping in April of 2001 to locations around the world and has active customer installations in the US, EMEA and AsiaPac.

Resources

Training

Eyretel offers comprehensive training courses that cover all Eyretel products for users, administrators and installation engineers. These classes are available at numerous Eyretel facilities worldwide.

Support

Eyretel provides different support options up to 24 x 7 x 365. Support is available on a global basis.

Documentation

Eyretel provides comprehensive user and Administrator documentation on all of its products. Installation guides are available to Eyretel certified individuals.

To learn more about Cisco Contact Center Solutions, please visit http://www.cisco.com/warp/public/180/prod_plat/cust_cont/.

To learn more about Eyretel applications please visit http://www.eyretel.com.

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