

Cisco IPCC **Express** & **Enterprise** – Review & What's New

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Consulting Systems Engineer

Agenda

- **Cisco in the Contact Centre Market & C.I.N**
- **AVVID & VoIP migration towards an IPCC solution**
- **IPCC **Express** Review & What's New**
- **IPCC **Enterprise** Review & What's New**
- **Multimedia Contact Architecture Review**
- **Demonstrations of the Cisco IPCC Enterprise Multimedia Solution**

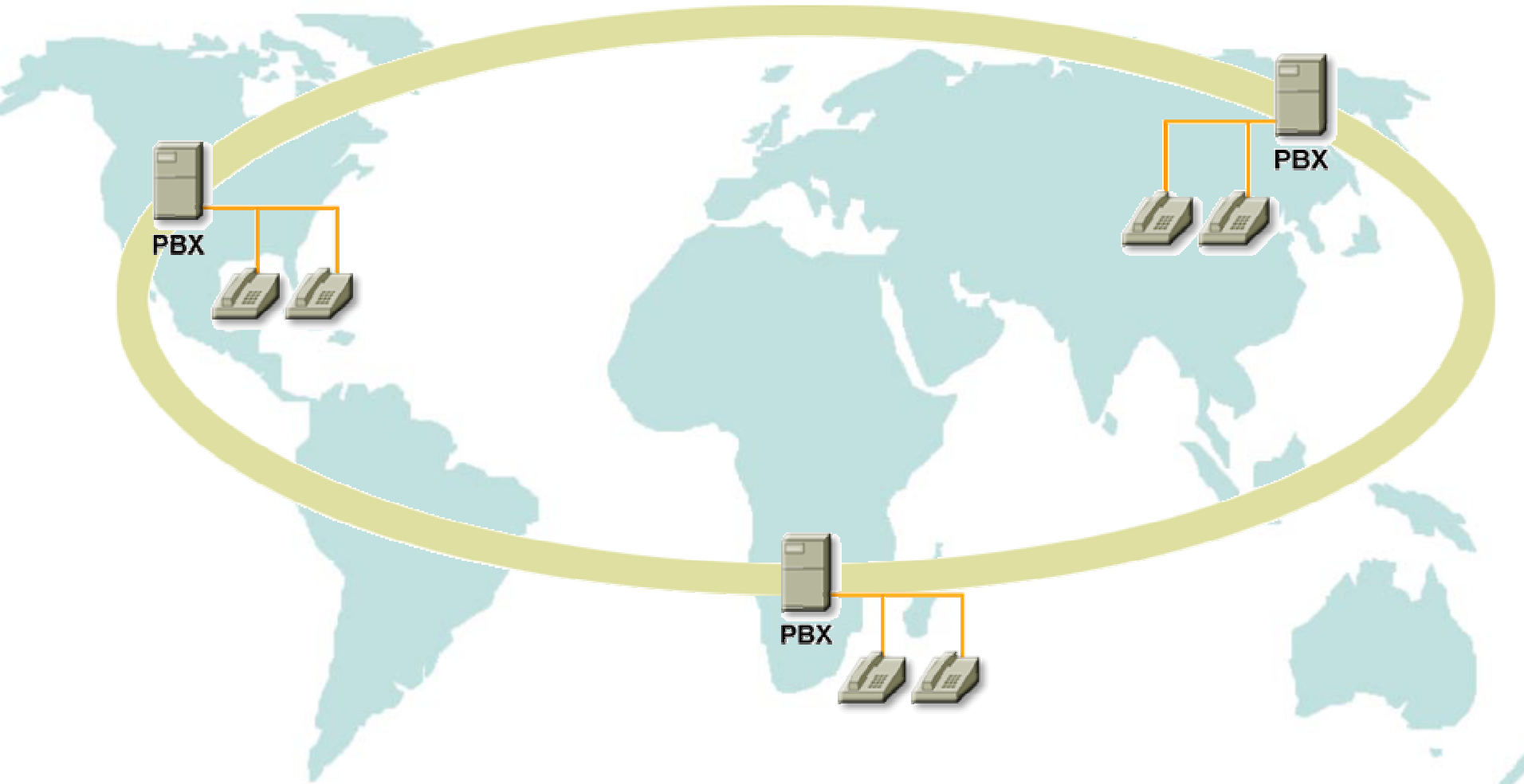
A brief history of Cisco: Customer Contact Centre Market

- **1993** – GeoTel ICR (Intelligent Contact Router) 1.0 released
Industry's first network-level pre-routing solution
- **1997** – ICR 4.1 release, including CTI (computer telephony integration)
Enables information gathered at network or premise IVR's to be used for routing decisions and to be passed to agent desktops for screen pops
- **1999** – Cisco acquires GeoTel, re-brands ICR as Cisco ICM (Intelligent Contact Manager)
- **1999** – Cisco acquires WebLine, adding text chat, co-browsing, Web callback, and E-Mail management to Contact Centre portfolio
- **2000** – First release of Cisco IPCC (IP Contact Centre)
- **2001** – ICM 4.5 release, delivering web-based reporting
- **2002** – ICM and IPCC 4.6 release, delivering IPCC scalability and reporting
- **2003** – ICM and IPCC 5.0 release, delivering full Multi-channel integration, Universal Queue, and Blended Outbound functionality on IP.

Call Centre

Early ACD

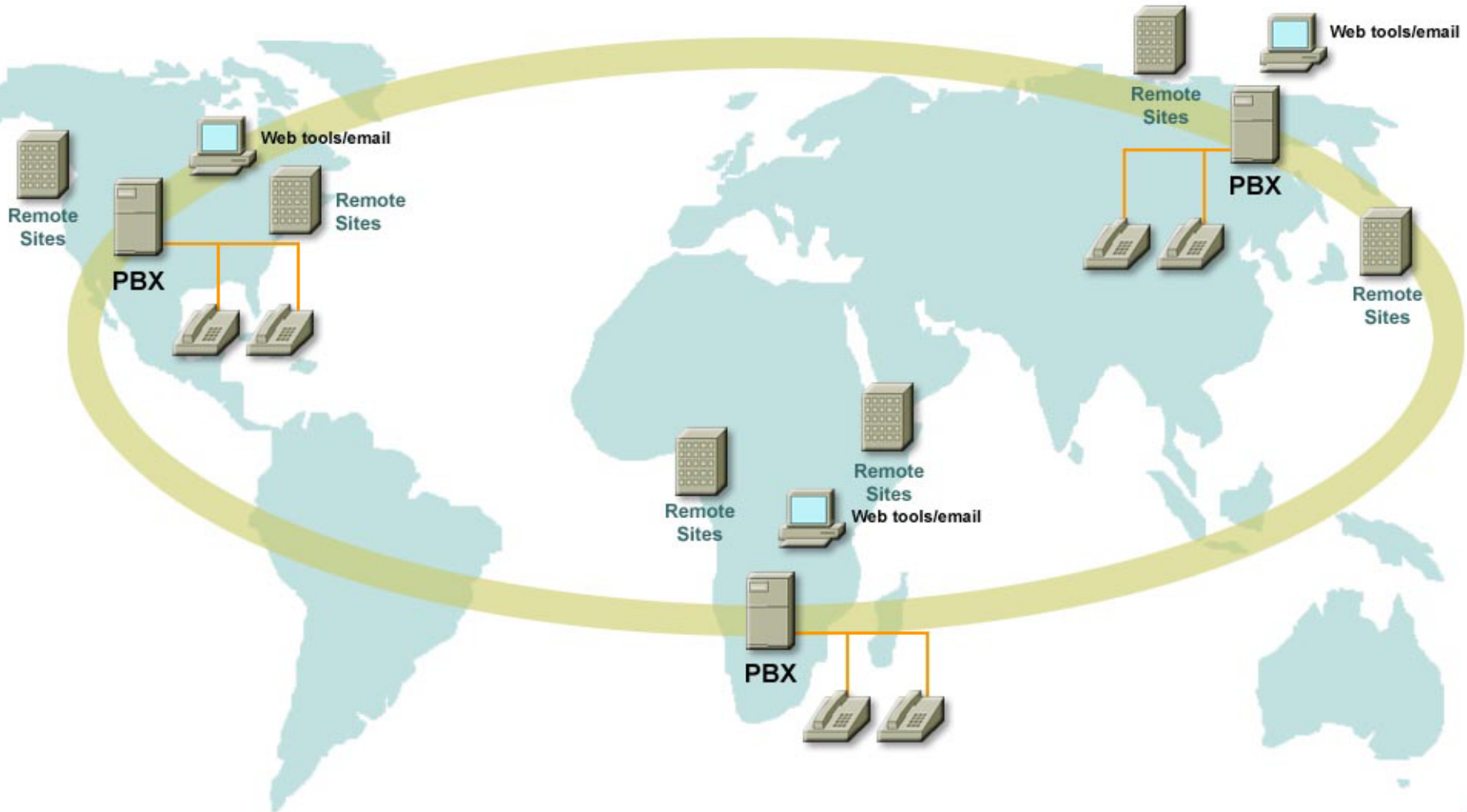
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Contact Centre

Introduction of Multi-Channel Tools

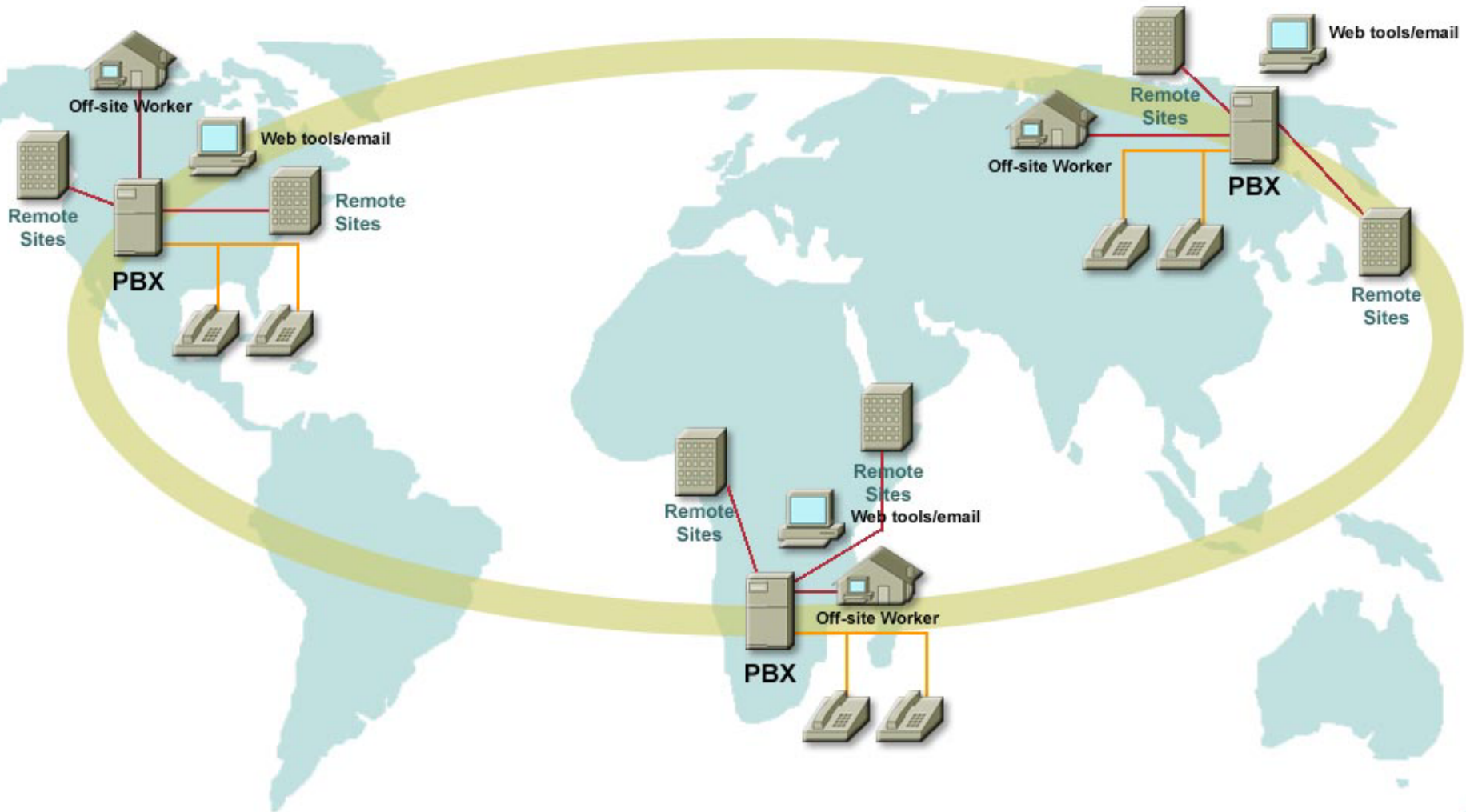
Cisco.com



Virtual Organization

Addition of Remote Offices and At Home Workers

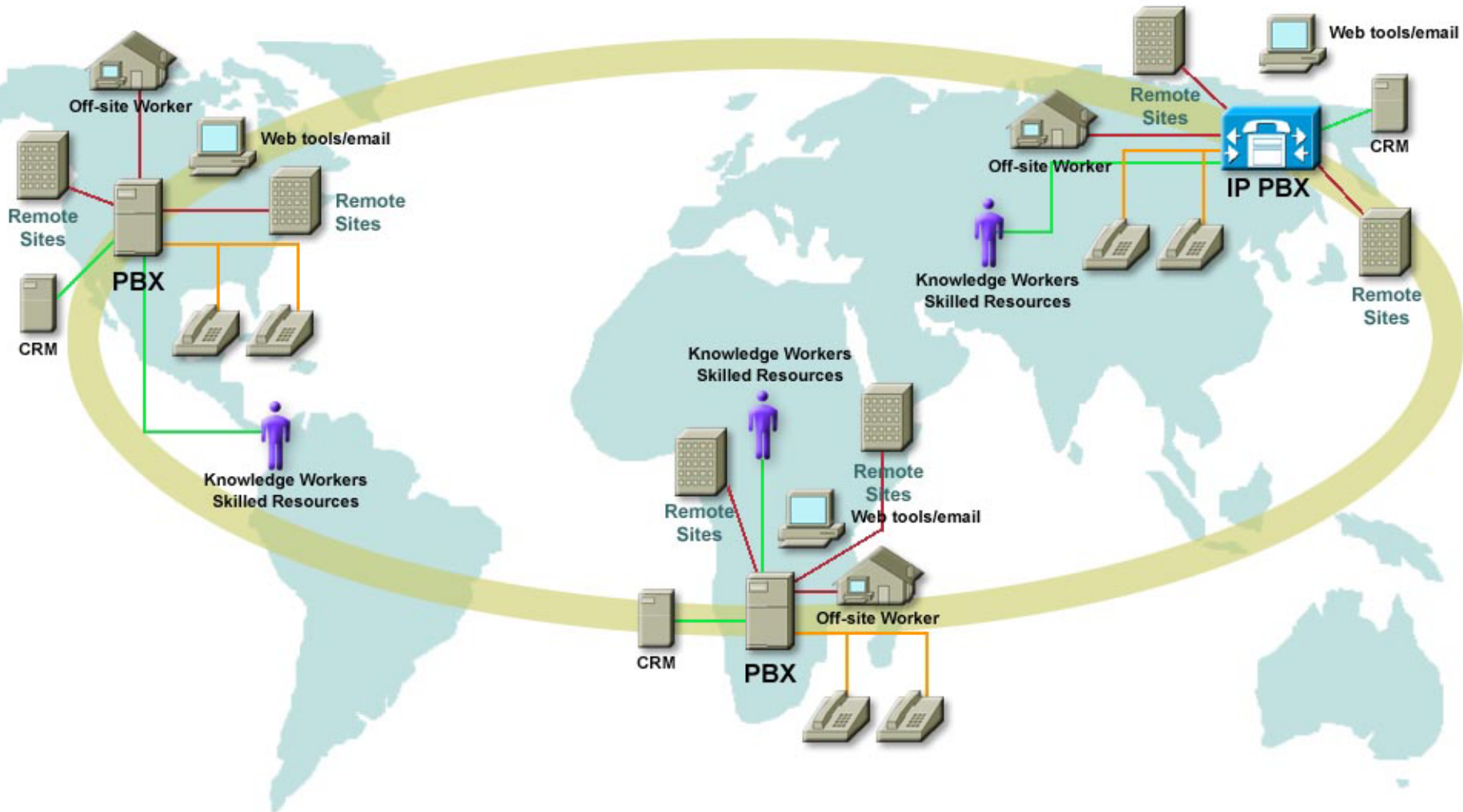
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Extended Organization

Introduction of CRM and Knowledge Workers

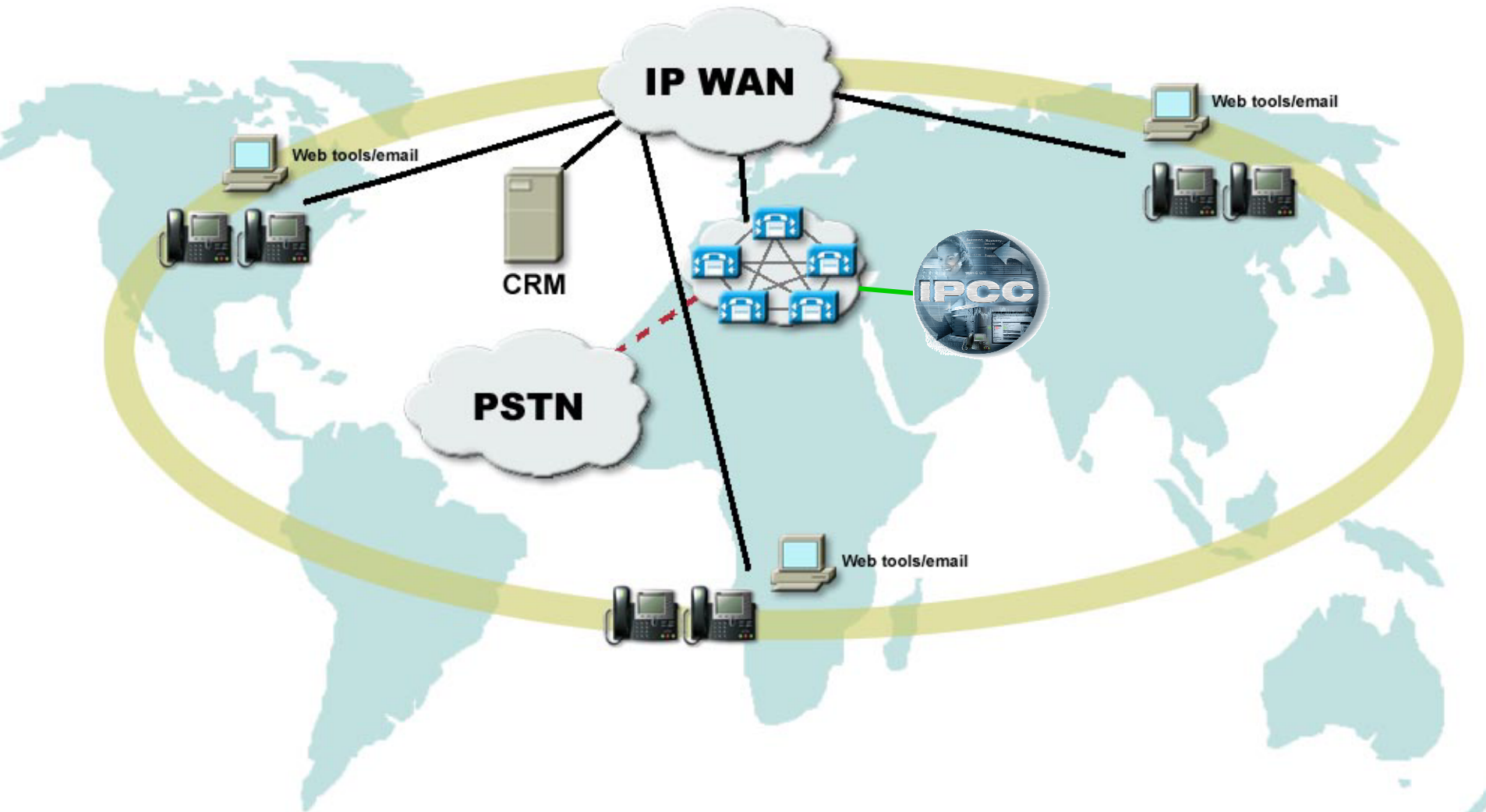
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The Cisco

Customer Interaction Network (CIN)

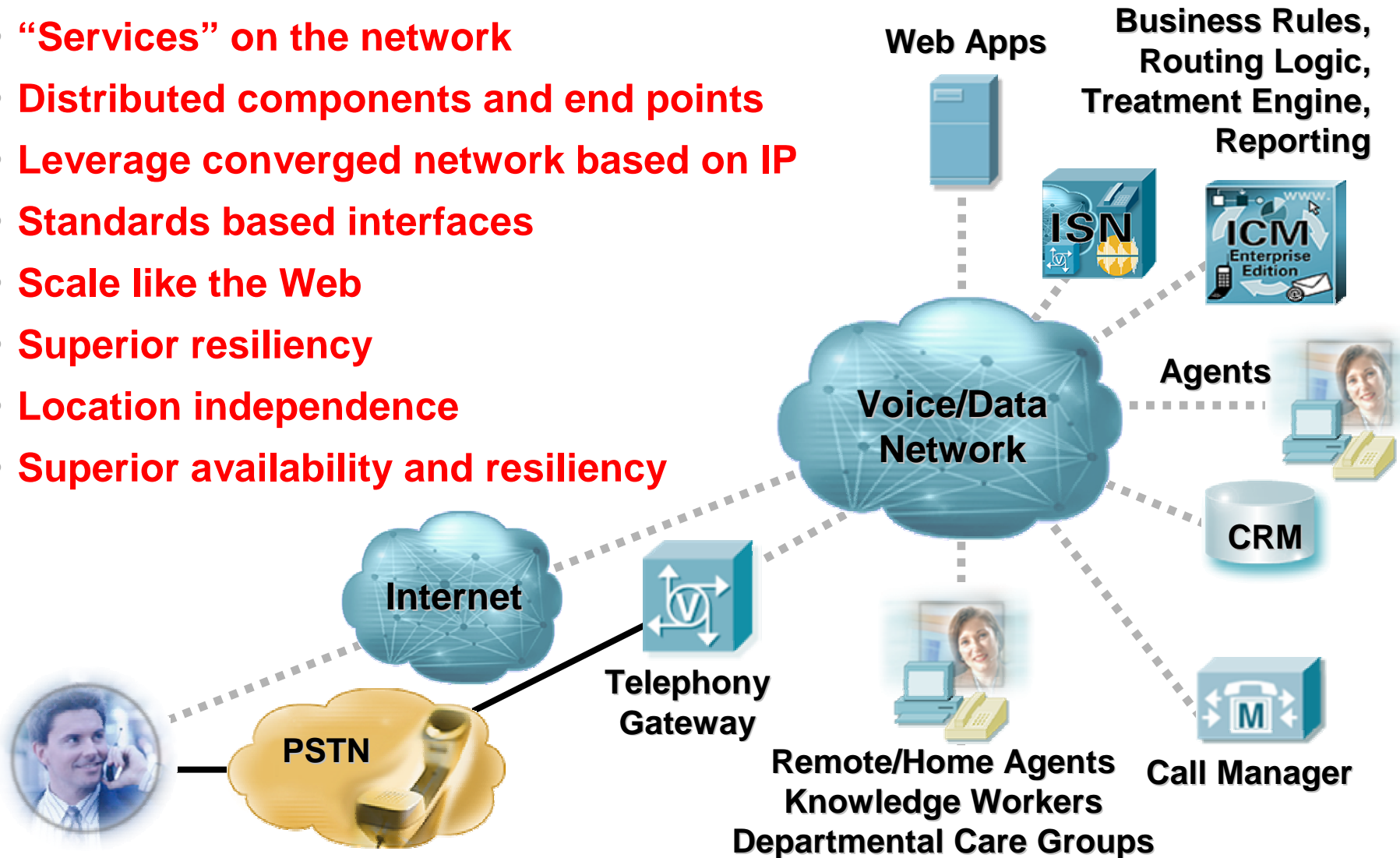
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Customer Interaction Network Architecture

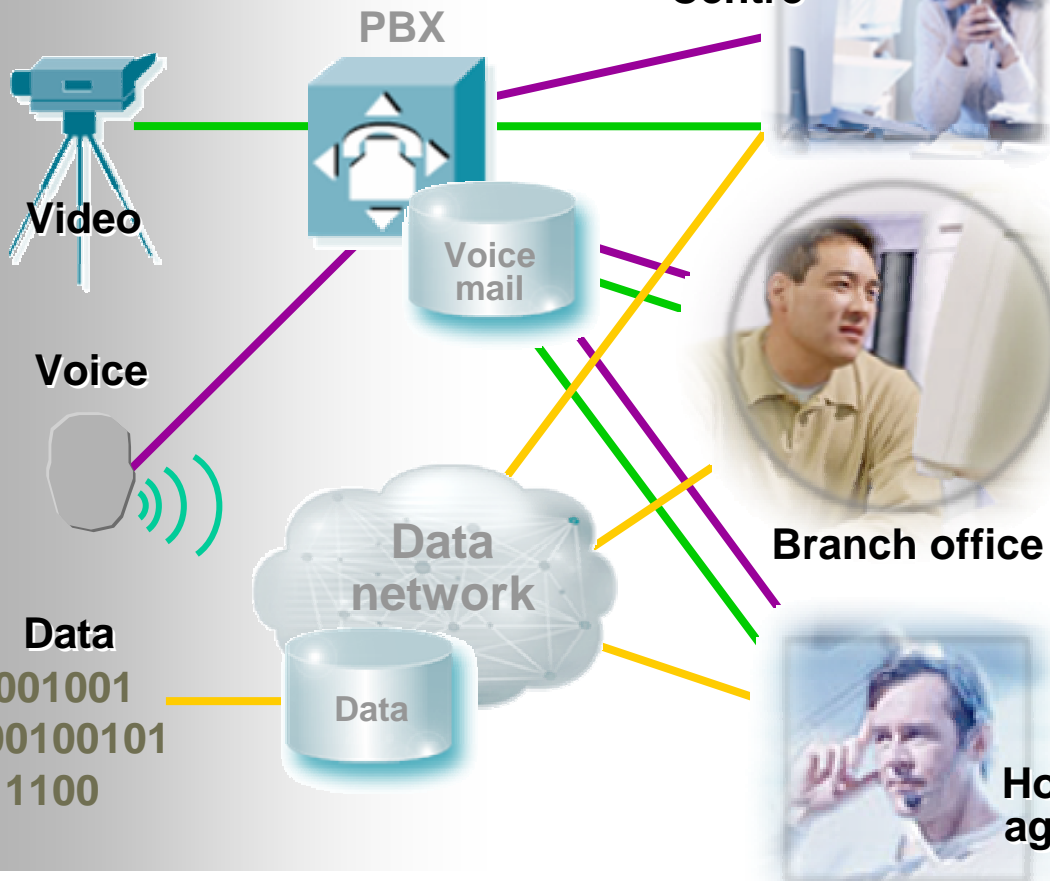
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- “Services” on the network
- Distributed components and end points
- Leverage converged network based on IP
- Standards based interfaces
- Scale like the Web
- Superior resiliency
- Location independence
- Superior availability and resiliency

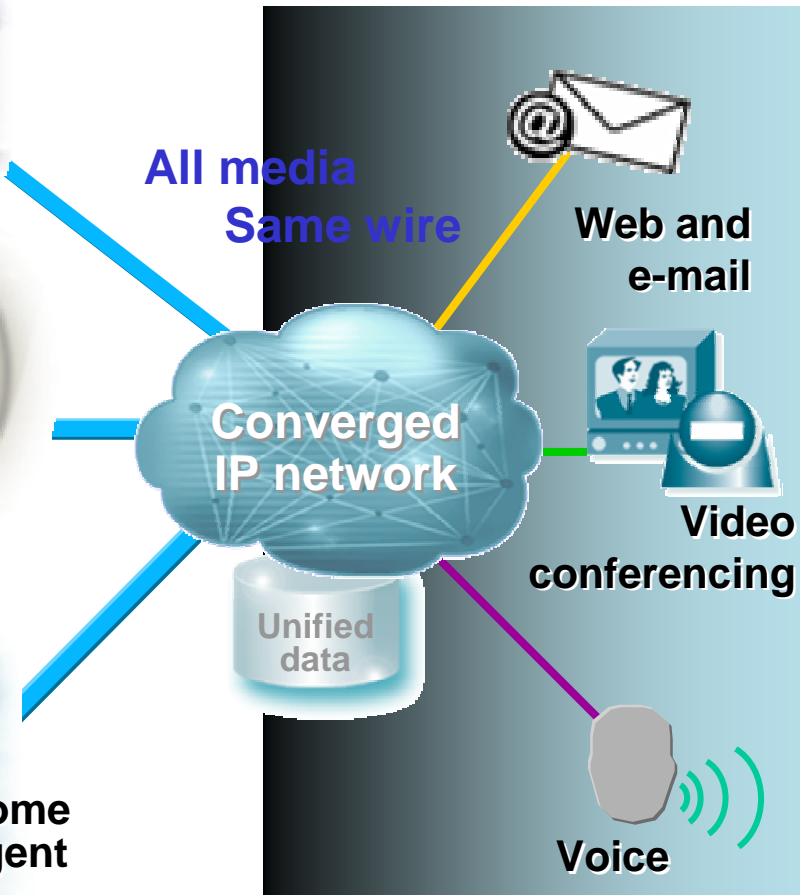


Media Convergence

TDM



Converged



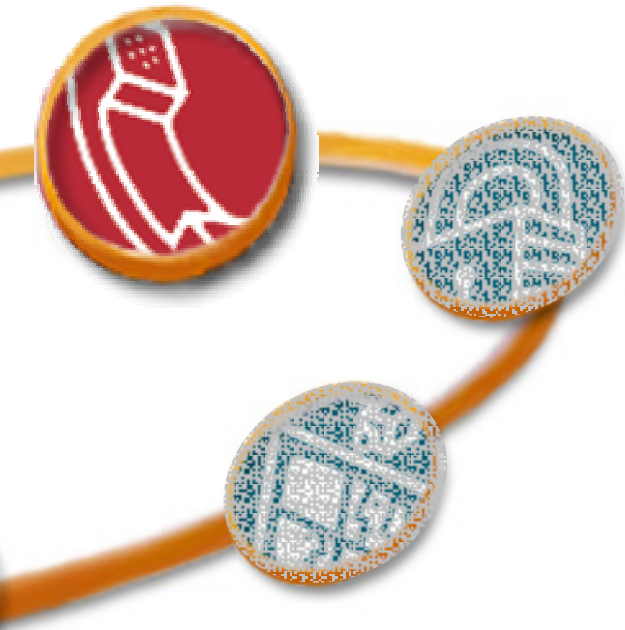
Cisco IPCC unifies old world and new world applications

AVVID Solutions

IP Telephony Solutions

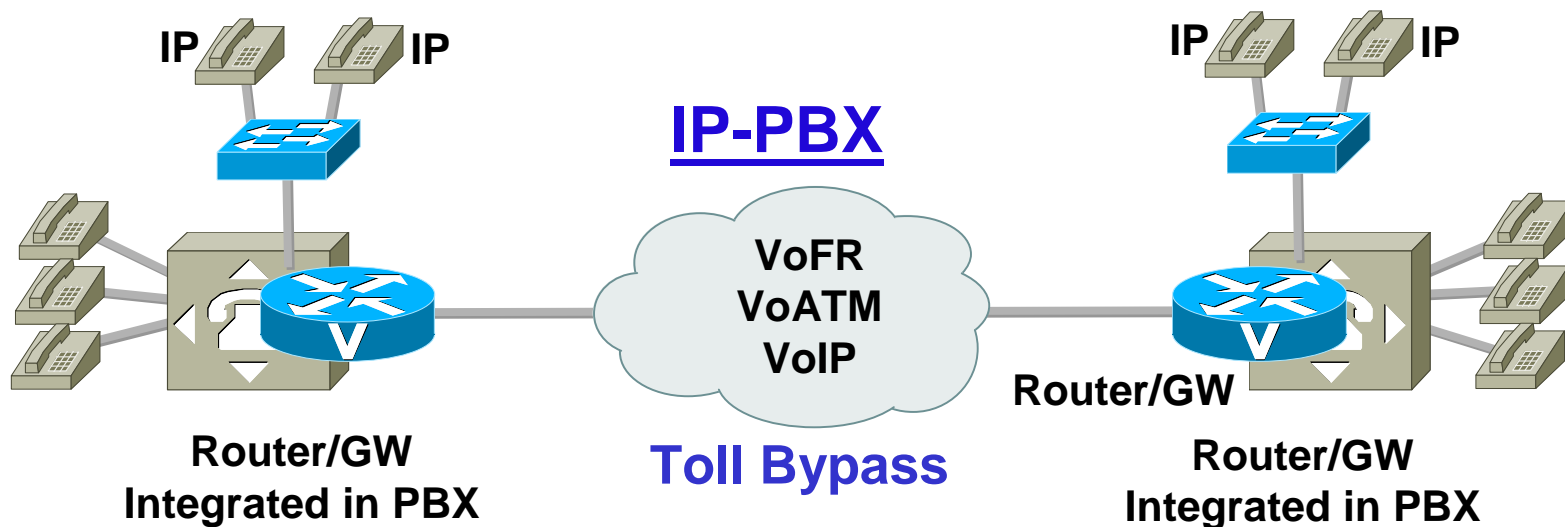
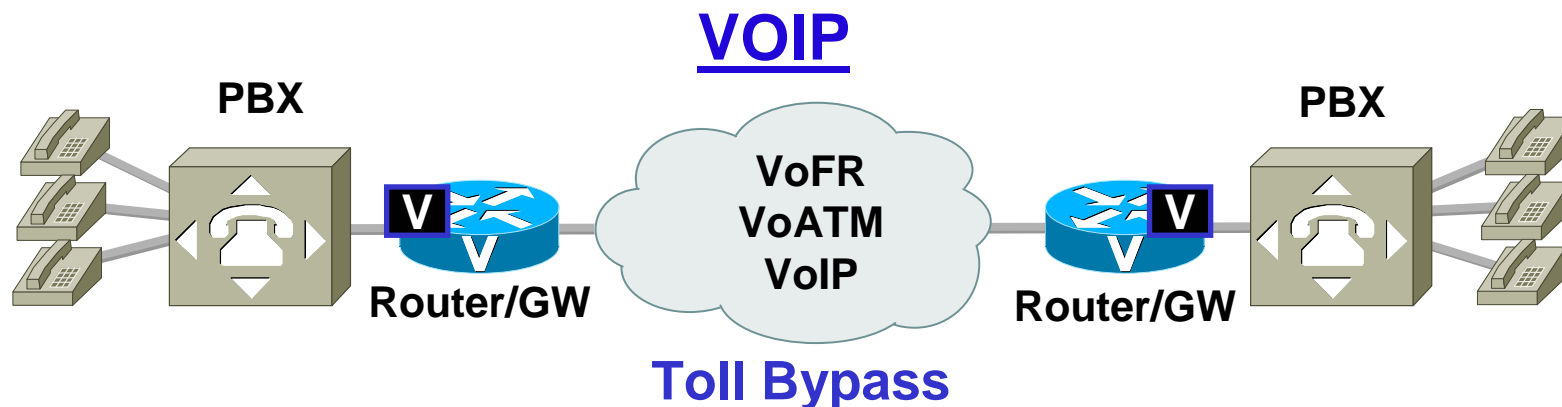
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IP Telephony Solutions



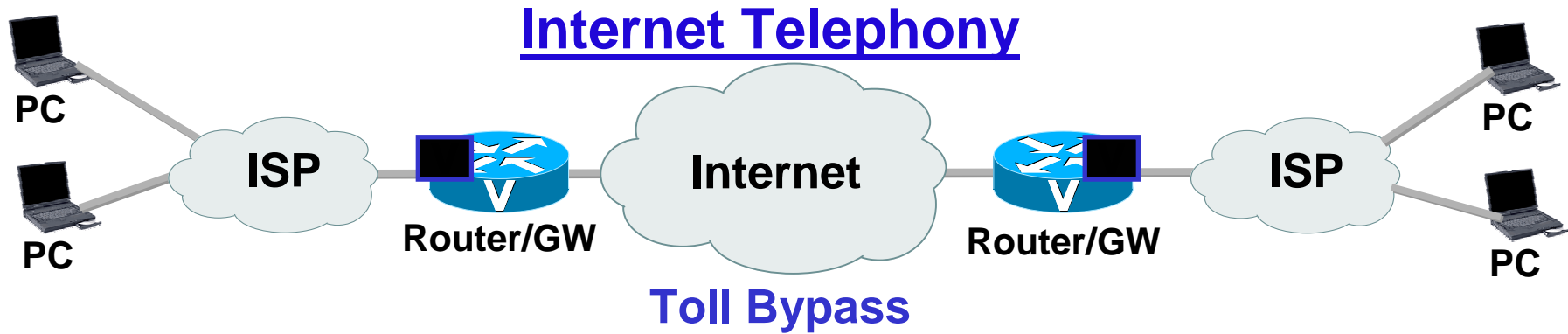
- **Voice Endpoints**
- **Unified Messaging**
- **Personal Productivity**
- **E-conferencing and Collaboration**
- **Call Centres**
- **IP Phone Applications**

Voice over IP and IP-PBX



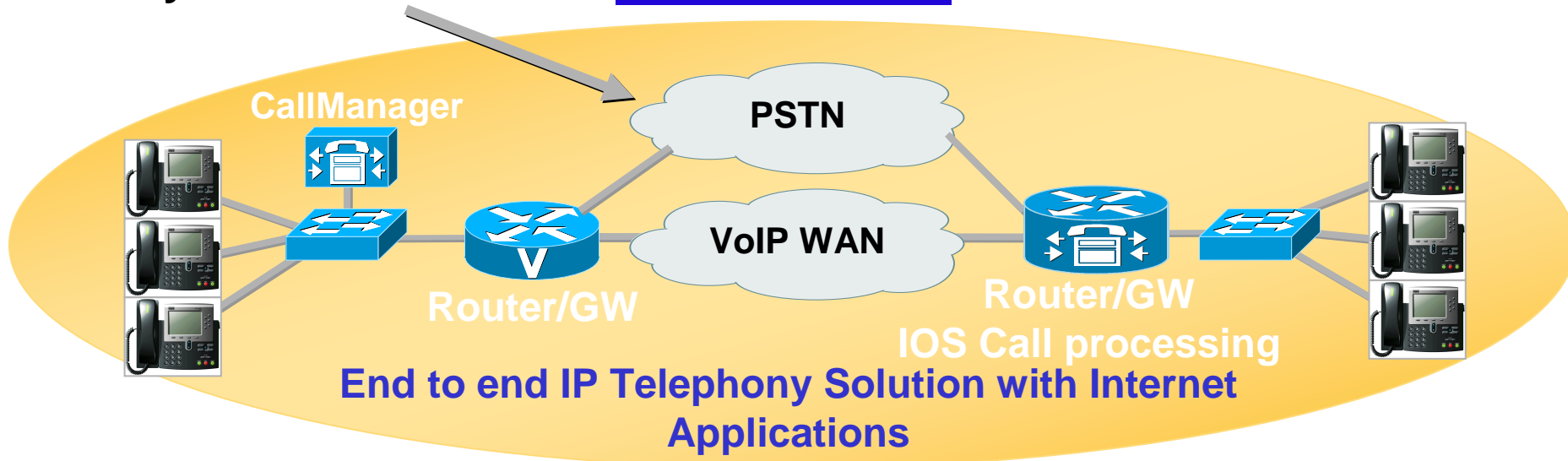
Internet Telephony and IP Telephony

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Today's Focus

IP Telephony

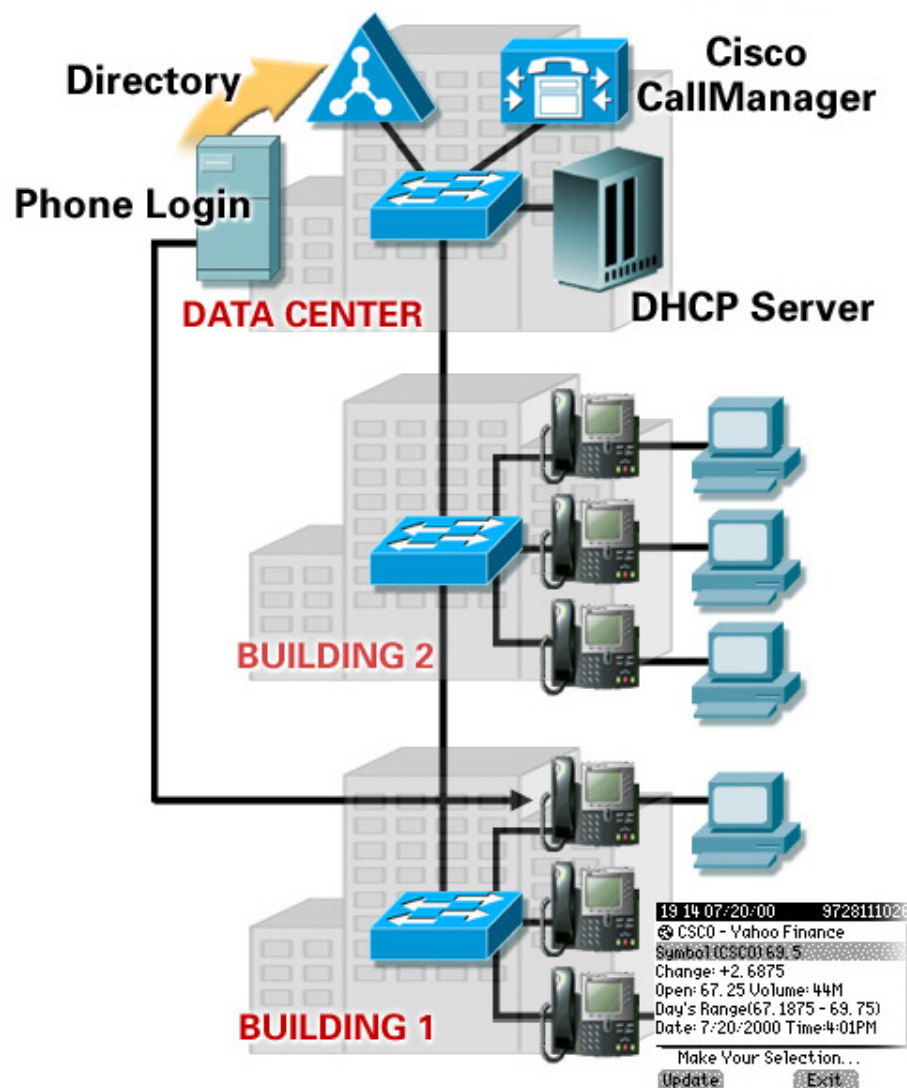


The Advantages of an IP Contact Centre

- The Virtual Agent Desktop

Cisco.com

- **Agents located anywhere**
 - No station line restrictions
 - No PC restrictions
 - No costs to move
 - Remote Agents / Teleworkers
- **Agents can easily roam**
 - Login to phone just like PC
 - Very effective with highly transitional teams
- **Core technologies within IP**
 - DHCP, TFTP, authentication
 - Phone logins, XML, E911 services
 - Single wire agent desktop drop

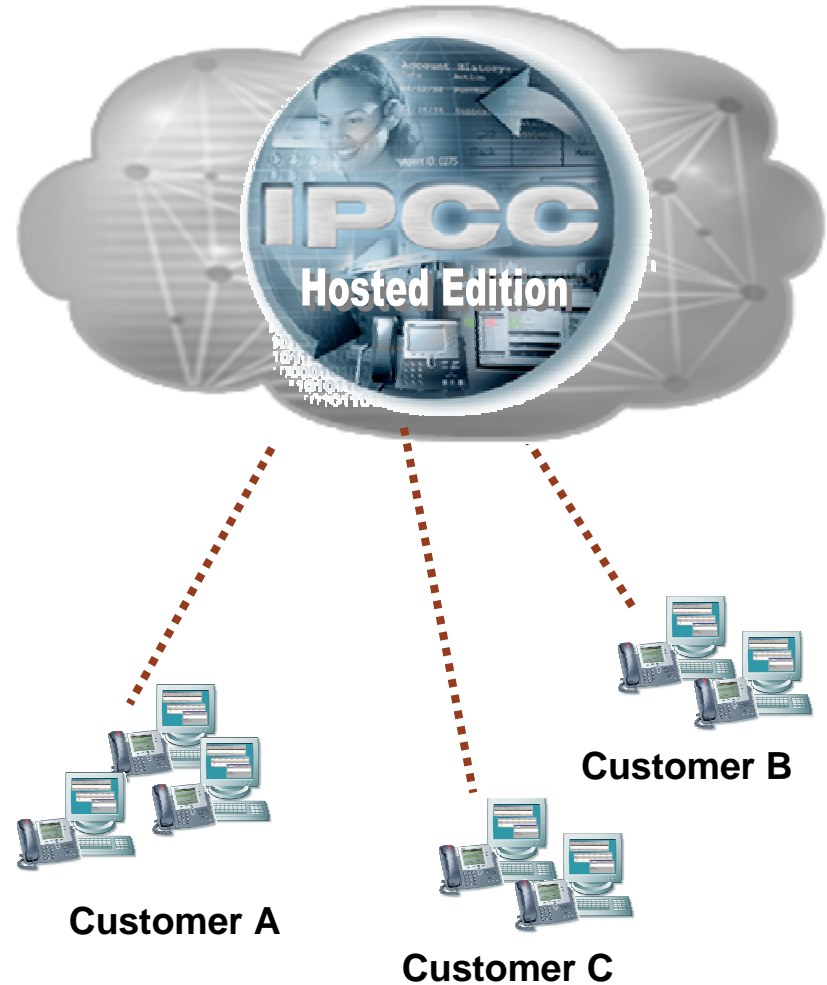


Cisco IPCC Family of ACDs

Single Site ACD



A Hosted ACD Solution



Multi-site / Virtual ACD



Cisco Differentiators

- **Offers migration with multi-site PBX and IP integration**
- **Core Cisco AVVID infrastructure as IP foundation**
- **Proven expertise in complex routing, core infrastructure**
- **Integrated into core IP telephony products**
- **Full line of products from small to large agent requirements**



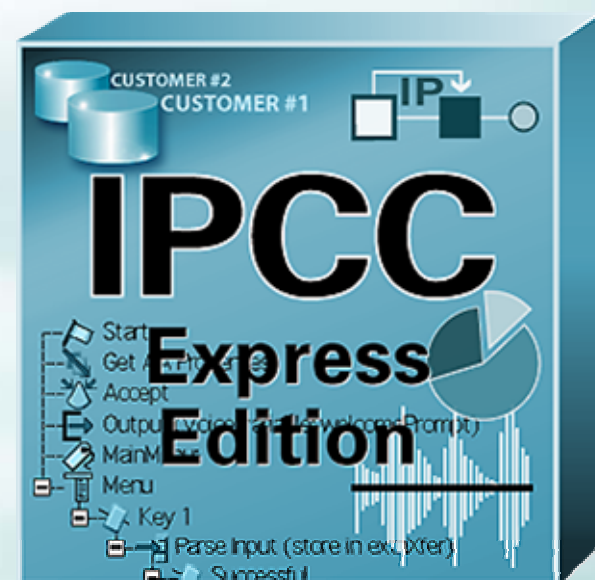
Cisco IPCC **Express** Overview

IPCC Express

Cisco's Mid-Market Contact Centre Solution

Cisco.com

- IPCC Express is Cisco's entry and mid-market solution for enterprise contact Centres
- Is an integrated 'contact Centre-in-a-box' solution with full ACD, IVR and CTI
- True virtual contact Centre when deployed using centralized AVVID deployment model
- Extensible and customizable



IPCC **Express** Feature Summary

System & Management

Cisco.com

- **System**

Integrated ACD, IVR, CTI

Enhanced package for formal contact Centres

Standard package for informal contact Centres

1-150 agents, 1-300 IVR ports*

Integrated with Cisco CallManager

Multi-language support (I18N)

- **Management Support**

Single service creation environment

Easy to use Web-based administration

Real-time reporting for system administrators

Historical reporting

Integration with CiscoWorks 2000 for system management

* Actual limits determined by hardware server and feature set deployed

IPCC **Express** Feature Summary

ACD & IVR for version 3.1

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- **ACD**

1-150 agents*

Skills-based routing

Priority queuing

CTI support

Supervisors may optionally take calls

Agent wrap up support

- **IVR**

1-300 IVR ports*

Database integration

ASR, TTS with VoiceXML options

HTTP & XML web service integration

Real-time notification services

* Actual limits determined by hardware server and feature set deployed

IPCC Express Feature Summary

Desktop & CTI

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- **Desktop**

- Full featured agent desktop

- IP Phone Agent

- Full featured supervisor desktop

- Silent Monitor, barge-in, coaching, intercept

- **CTI**

- Standard screen pop with ANI/DNIS and custom information

- Support for integration with any Windows application

- Easy to use keyboard emulation

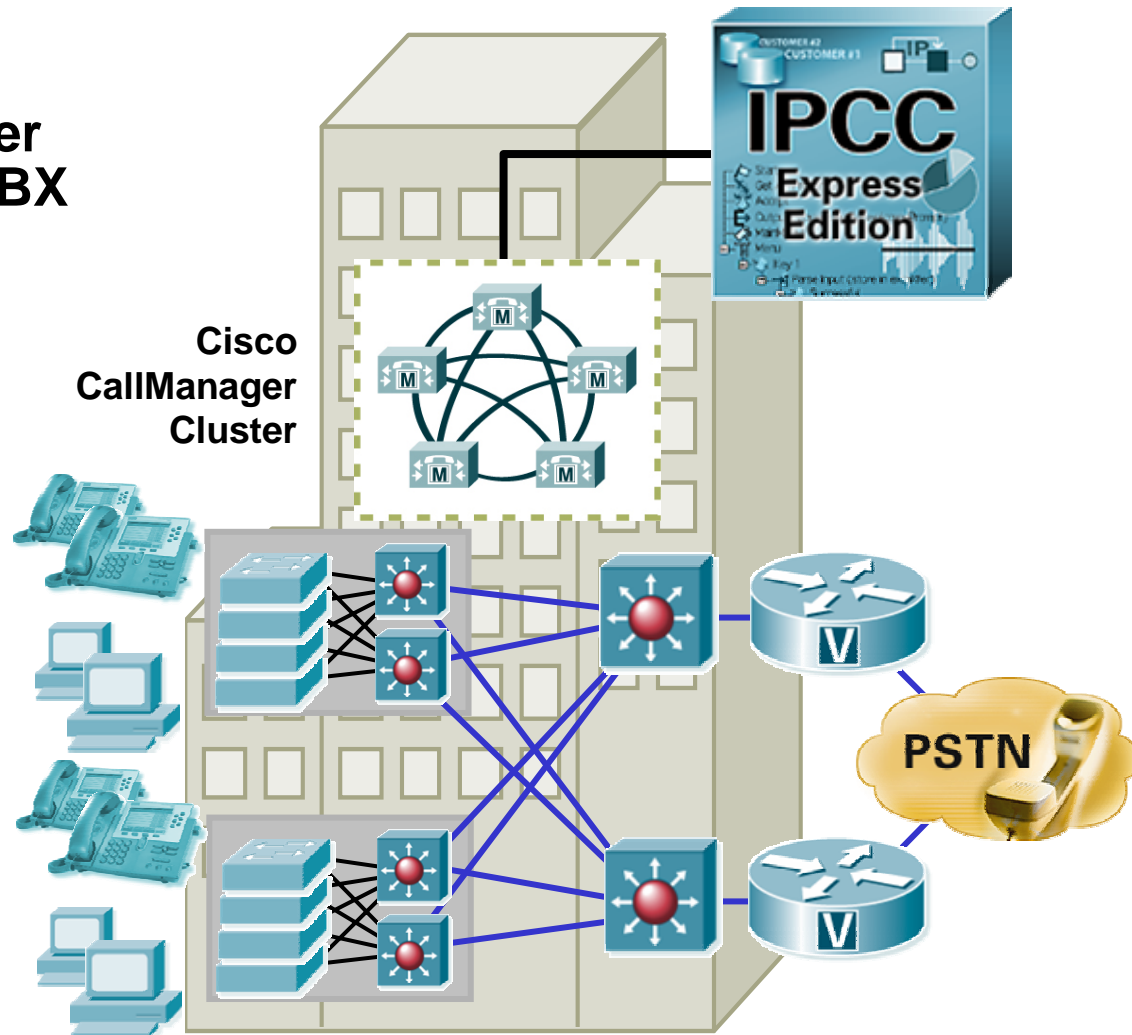
- Support for integration at custom programming level

IPCC Express Deployment Models

Single Site Deployment

Cisco.com

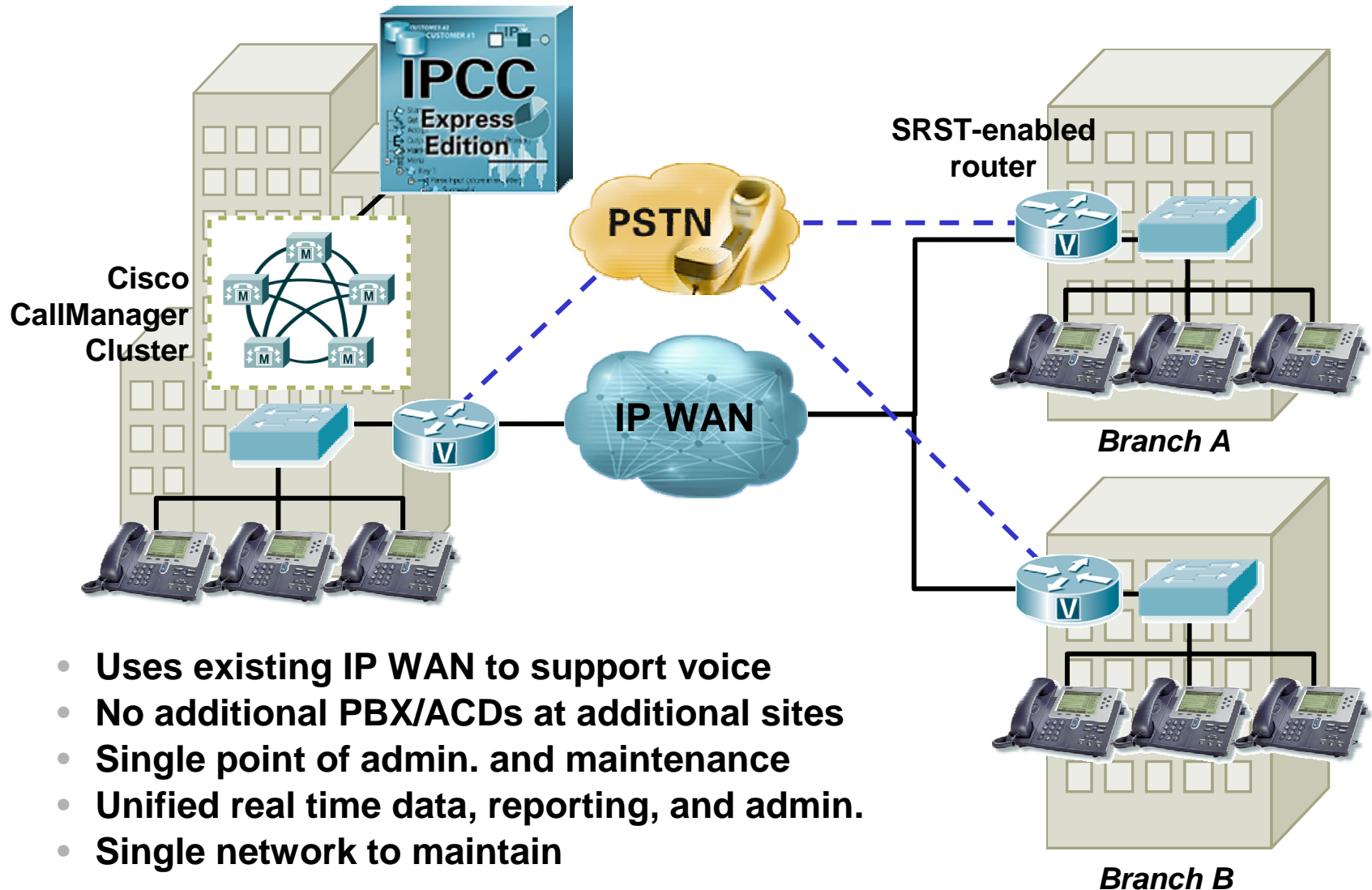
- Cisco CallManager cluster provides fault resilient PBX functionality
- Cisco IPCC Express provides ACD functionality
- PSTN calls arrive over a voice gateway
- Agents use Cisco IP Phones on VoIP enabled LAN



IPCC Express Deployment Models

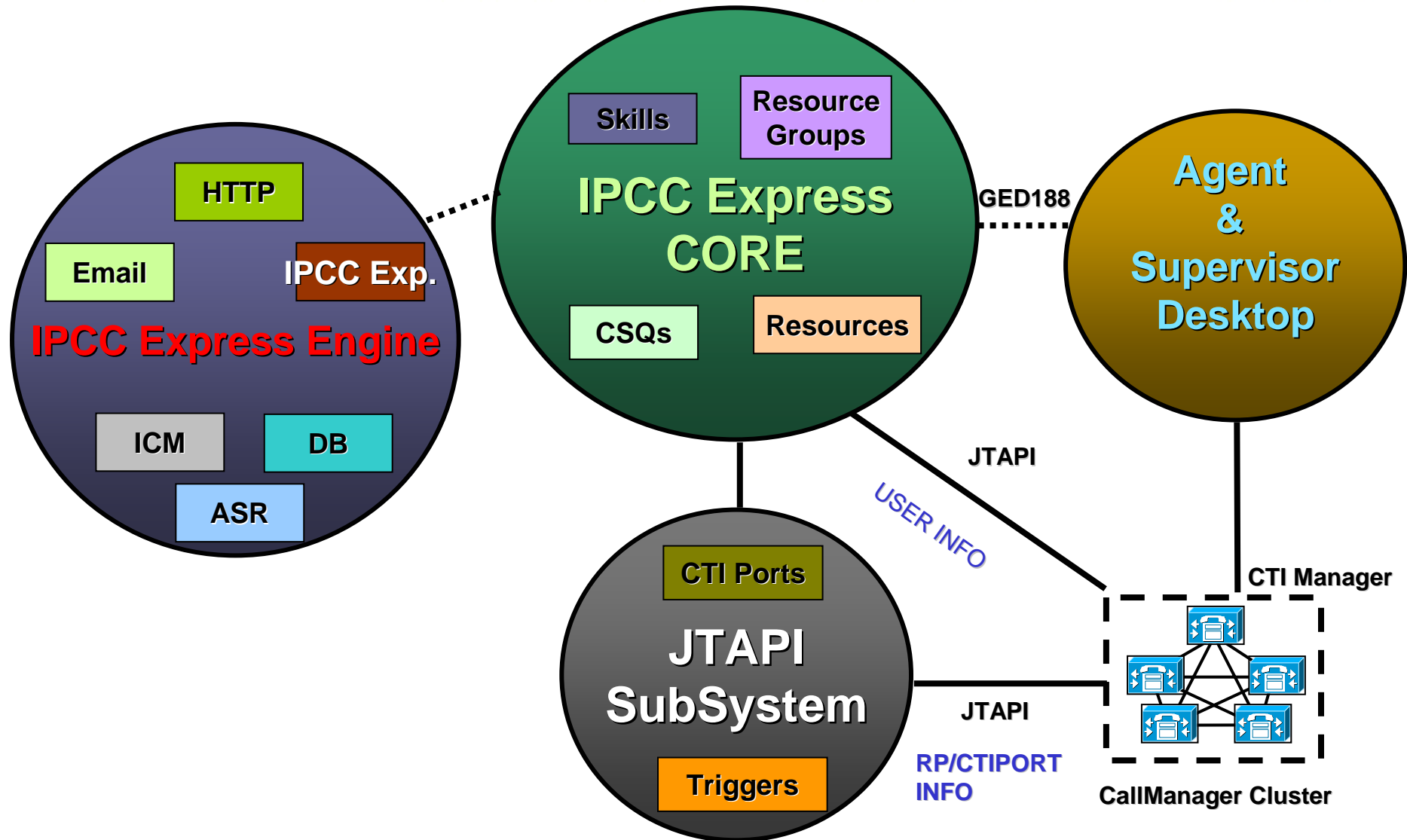
Multi-Location Centralized Deployments

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- Uses existing IP WAN to support voice
- No additional PBX/ACDs at additional sites
- Single point of admin. and maintenance
- Unified real time data, reporting, and admin.
- Single network to maintain

IPCC Express Architecture



Cisco Agent Desktop Enhanced

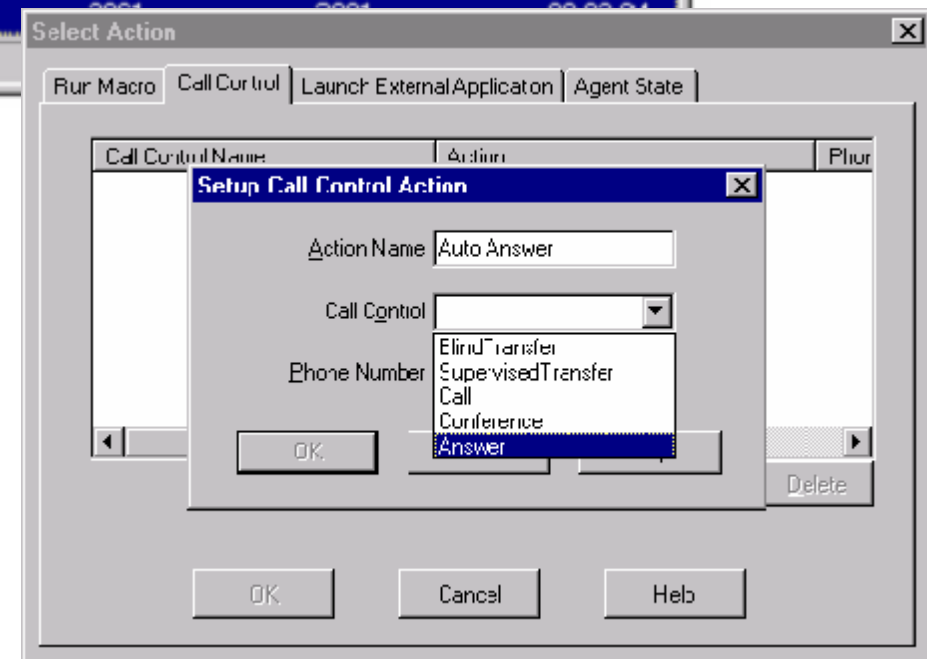
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A quick-to-deploy CTI desktop application

Call Control Features

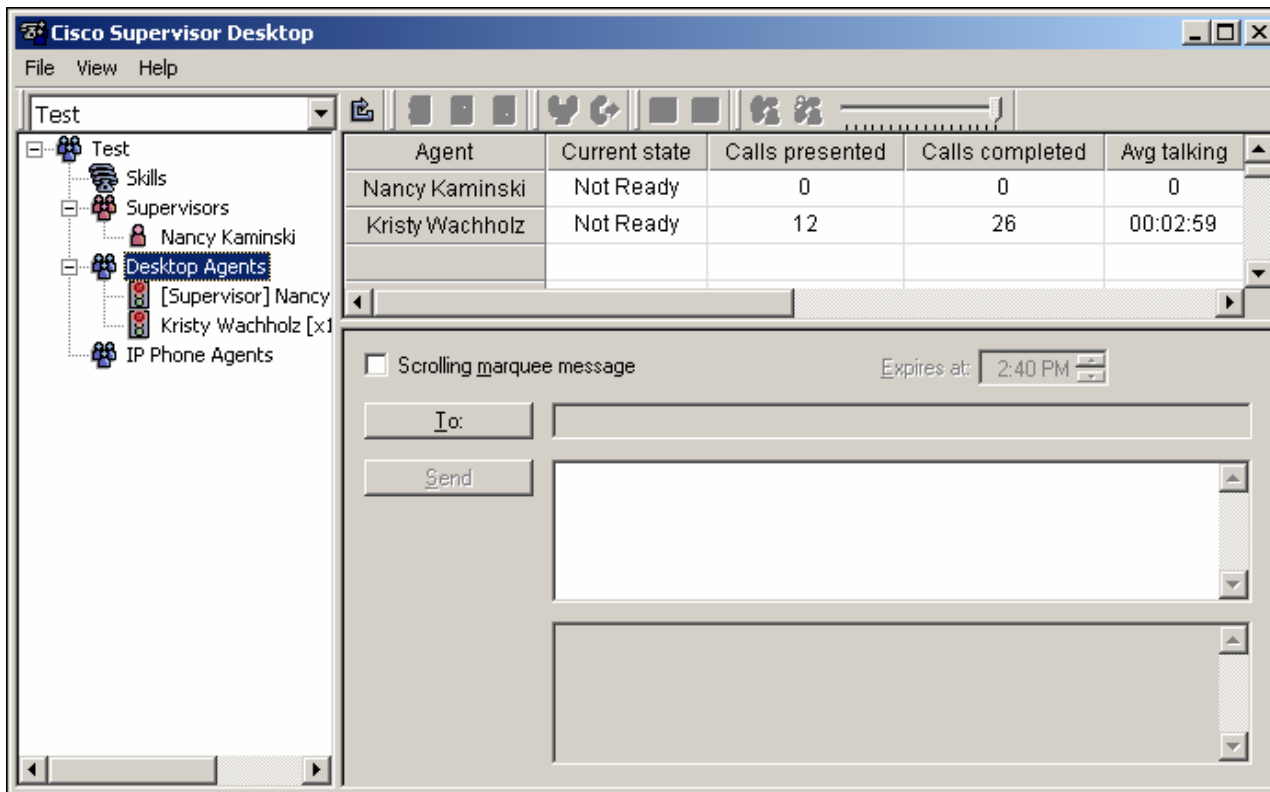
ACD Features

Task Buttons



- All functionality of CAD Standard
- Keystroke Macros Launch Desktop Apps.
- Quick Installation
- Easy Modifications

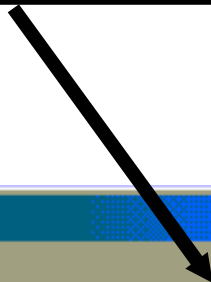
New in Supervisor Desktop



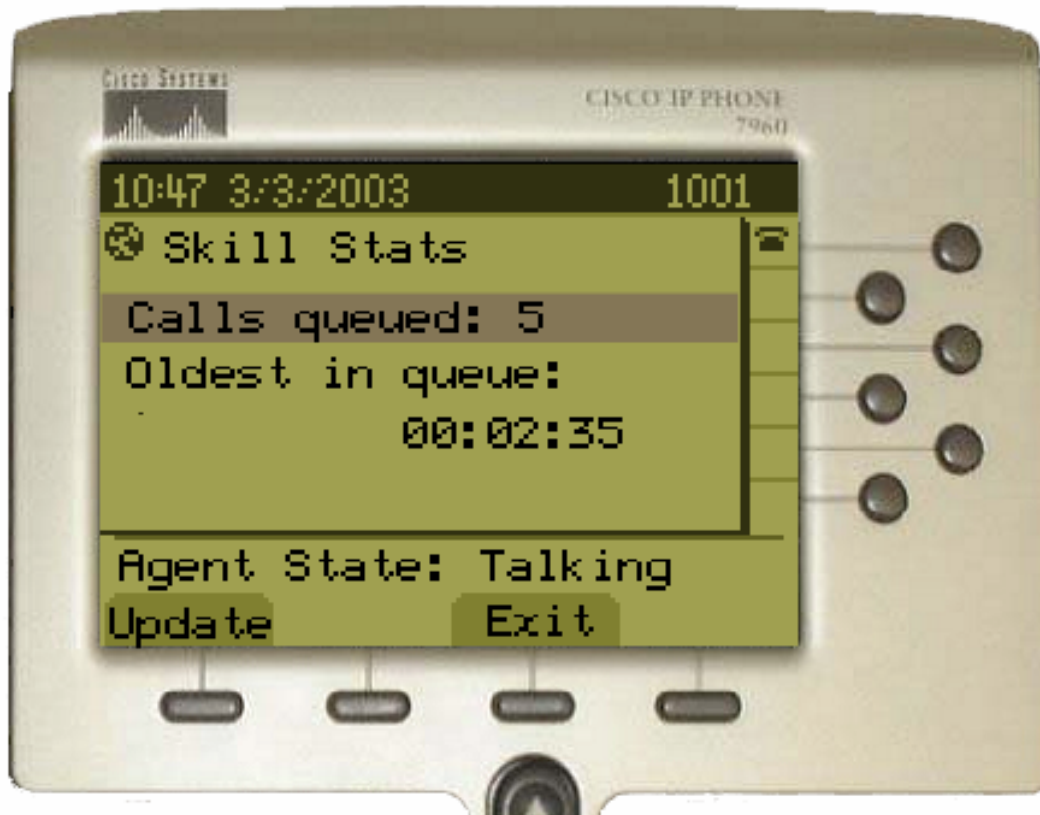
Click any column header to sort displayed data in ascending or descending order

Cisco Agent Desktop with Media Termination

Volume Control



New in IP Phone Agent



- **Skill statistics available for viewing whenever agent is logged in**
- **Accessed through the Stats soft key**
- **Automatically refreshed every 15 seconds; can be manually updated**

IPCC Express Reporting

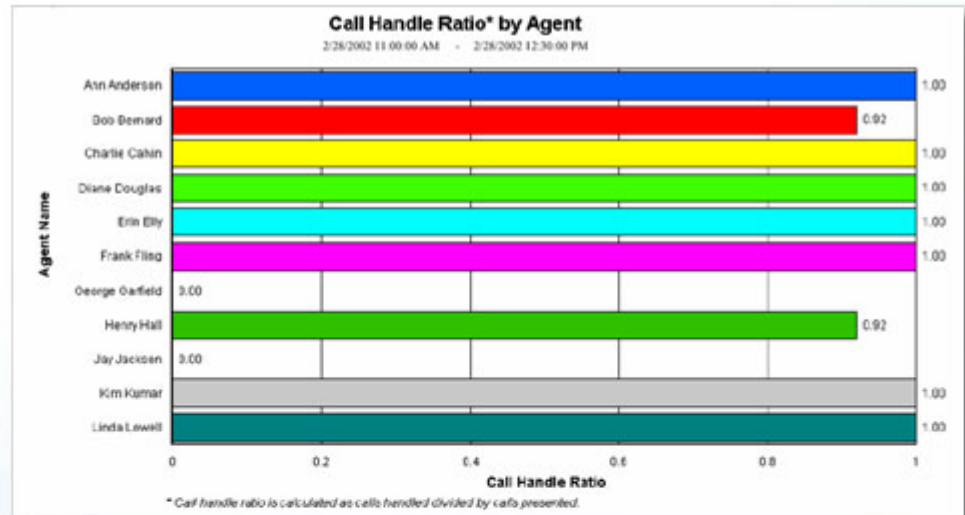
Historical Reporting - Sample

Agent Summary Report

One line per agent to summarize the agent activity within the report period. Some or all IPCC Express agents can be displayed.

Agent selection criteria can be based upon resource groups, or skills, or top/bottom ranking of a certain metric (e.g. talk time).

more charts available...



* Average is calculated per session.

Agent Summary Report

2/28/2002 11:00:00 AM - 2/28/2002 12:30:00 PM

Agent Name	Extension	Average*	Calls	Calls	Handle Ratio	Handle Time		Talk Time	
		Logon Time	Handled	Presented		Avg	Max	Avg	Max
Ann Anderson	1475	0:25:15	9	9	1.00	0:1:29	0:2:39	0:0:53	0:1:28
Bob Bernard	1092	0:11:45	12	13	0.92	0:2:25	0:7:51	0:1:16	0:4:12
Charlie Calvin	1430	0:23:52	18	18	1.00	0:1:49	0:3:36	0:1:15	0:3:30
Diane Douglas	1588	0:27:41	3	3	1.00	0:38:39	1:49:23	0:2:4	0:4:44
Erin Ely	1588	0:18:35	12	12	1.00	0:1:29	0:2:39	0:0:53	0:1:28

What's New in IPCC Express 3.1

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The Key 3.1 Features /Components :

Introducing the **Generic Feature Server (GFS)** - move selected features to stand alone servers for greater scalability

Historical Reporting, Monitor & Record, ASR & TTS

- Scalability to 150 IPCC Express agents (ON GFS)
- Scalability for 300 IVR ports (ON GFS)
- Remote Database Server
- 32 Simultaneous Recording and Monitoring sessions (w/ G.711 and GFS)
- G.729 Support (chosen at install time)
- Competency Based Routing
- CallManager Seaview Support “only” (version CM 3.3(3) and later)
- MCS-7845-2400 Dual Processor Support
- IPCC Express Agent's Line Call Forwarding Support

Additional **Express 3.1** Features

- **Co-resident recording files with Rascal server**
- **Synchronization of JTAPI version with CM**
- **Multiple monitoring domains**
- **IP phone agent statistics and enterprise data**

Supported Hardware Platforms

- **Support all MCS servers that are supported with the 3.0(X) releases.**
- **Support all next generation “Cambridge” MCS 7845 type servers with at least 1 GB SDRAM memory.**

IPCC Express

- Scalability based on Hardware

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Standalone for MCS-7845

- Logged in Agents: **150**
- Logged in Supervisors: 30
- Calls in Queue: 225 (equal to number of CTI Ports)
- Skills: 100
- CSQs: 75
- Resource Groups: no enforced limit

Standalone for non-7845

- Logged in Agents: **75**
- Logged in Supervisors: 10
- Calls in Queue: 150 (equal to number of CTI Ports)
- Skills: 50
- CSQs: 25
- Resource Groups: no enforced limit

Cisco CRS - ASR and TTS support

- **Automatic Speech Recognition (ASR) integration with Nuance v7.0 available in two options:**
 - Limited speech language recognition (e.g., yes, no, numbers)**
 - Full natural speech language recognition**
- **Text-to-Speech (TTS) integration with Nuance Vocalizer 1.0/ 3.0 (for 3.1) – both female and male voice options and Canadian French**
- **Multilingual options available**

Cisco IPCC **Enterprise** Overview

Cisco IPCC Enterprise Edition 5.0

Cisco.com

What's new in 5.0?

Cisco IPCC Enterprise Edition v5.0

Cisco Web Collaboration Option

Cisco E-Mail Manager Option

Cisco Outbound Option



New for IPCC Enterprise 5.0

- Multimedia Interaction Types

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- We've combined Rules Creation and routing for the following functions...
 - **Voice**
 - **E-mail routing**
 - **Text Chat request routing**
 - **Web Callback routing**
 - **Web Collaboration request routing**
 - **Outbound Campaign Management**



... within the same architecture

- You can now apply common business rules to each contact, regardless of channel type, before delivery to an agent

Cisco IP Contact Centre – Enterprise Edition

Cisco.com

- **Cisco IPCC Enterprise Edition**

Single, cost effective implementation for multi-channel ACD, IVR, CTI, and outbound functionality

2+ years market maturity

Hundreds of deployments in North America

Only IP solution with deployments of more than 1000 agents

Multi-site, mission critical contact Centre operations

Carrier class fault tolerance and reliability requirements

Extend to remote workers, branch offices; new sites up and running very quickly

Cisco IP Contact Centre **Enterprise Edition**

Cisco.com

- **Mid-to-large market IP-ACD Cisco solution**
- **Fully scalable architecture**
- **Intelligent Contact Management & Skills Based Routing**
- **Integrated Enterprise CTI**
- **Web collaboration**
- **E-mail, fax and voicemail**
- **Outbound dialing**
- **Facilitates smooth TDM to IP migration**
- **Enterprise Wide Reporting**



Cisco IP Contact Centre **Enterprise** Edition

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**Intelligent
contact
management**



**Cisco
CallManager**



**User
interface**



**Queue
platform**



**Cisco
Web Collaboration
Option**



**Cisco
Outbound Option**



**Cisco
E-Mail Manager
Option**

IPCC Integrations

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- **Carrier Networks**
 - 1-800 number “Pre-Routing”
- **Interactive Voice Response (IVR)**
 - Self-service and contact queuing
- **Traditional ACDs**
 - Multi-site or multi-platform environments
 - Enterprise “Post-Routing”
 - migration strategy
- **Databases**
 - Intelligent contact routing, screen pops



IPCC Partner Applications


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- **CRM**
 - Routing, screen pop, desktop event data integration
- **Call recording**
 - Voice and media (IP based and traditional Voice)
- **Outbound dialing**
 - Predictive, preview, power
- **Workforce management**
 - Scheduling, adherence
- **Reader boards**



Cisco Customer Contact Open Ecosystem

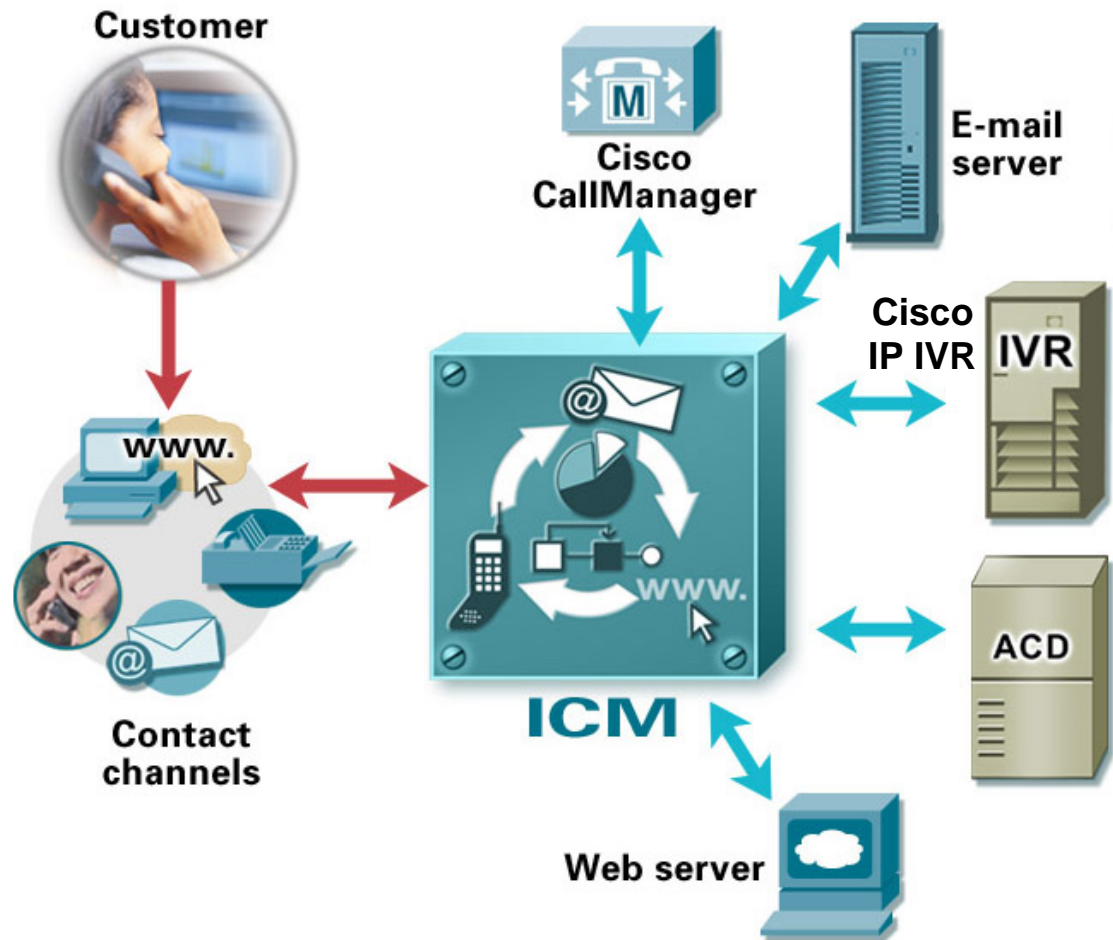
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CRM	IVR	Voice/Data Recorders	Others
<p>Cliffstone Chordiant SW Cicero Tech. E.piphany Graham Tech. Kana Oracle Pegasystems PeopleSoft Point Info Systems Siebel SAP</p>	<p>Apex Voice Aspect—VoiceTek Aumtech BeVocal Edify Epos Fluency Voice IBM—Direct Talk Intervoice-Brite Nuance Octon Pascom Periphonics Spanlink Syntellect TellMe Networks Virtual Hold Tech. Yulong</p>	<p>Envision Telephony e-Talk Eyretel Mercom Systems Nice Systems Verint Systems Witness Systems</p> <div data-bbox="944 948 1309 1058" style="background-color: #cccccc; text-align: center; padding: 5px; margin: 10px 0;">WFM</div> <p>Blue Pumpkin IEX Newmetrics</p>	<p>Concerto - Dialer Divine - Dialer Exony - Reporting Crystal Voice - VoIP Inova – Wallboard Spectrum - Wallboard SYMON - Wallboard TargetVision – Wallboard Magnetic North – Dialer and wallboard</p> 

Cisco ICM Enterprise Edition

Cisco.com

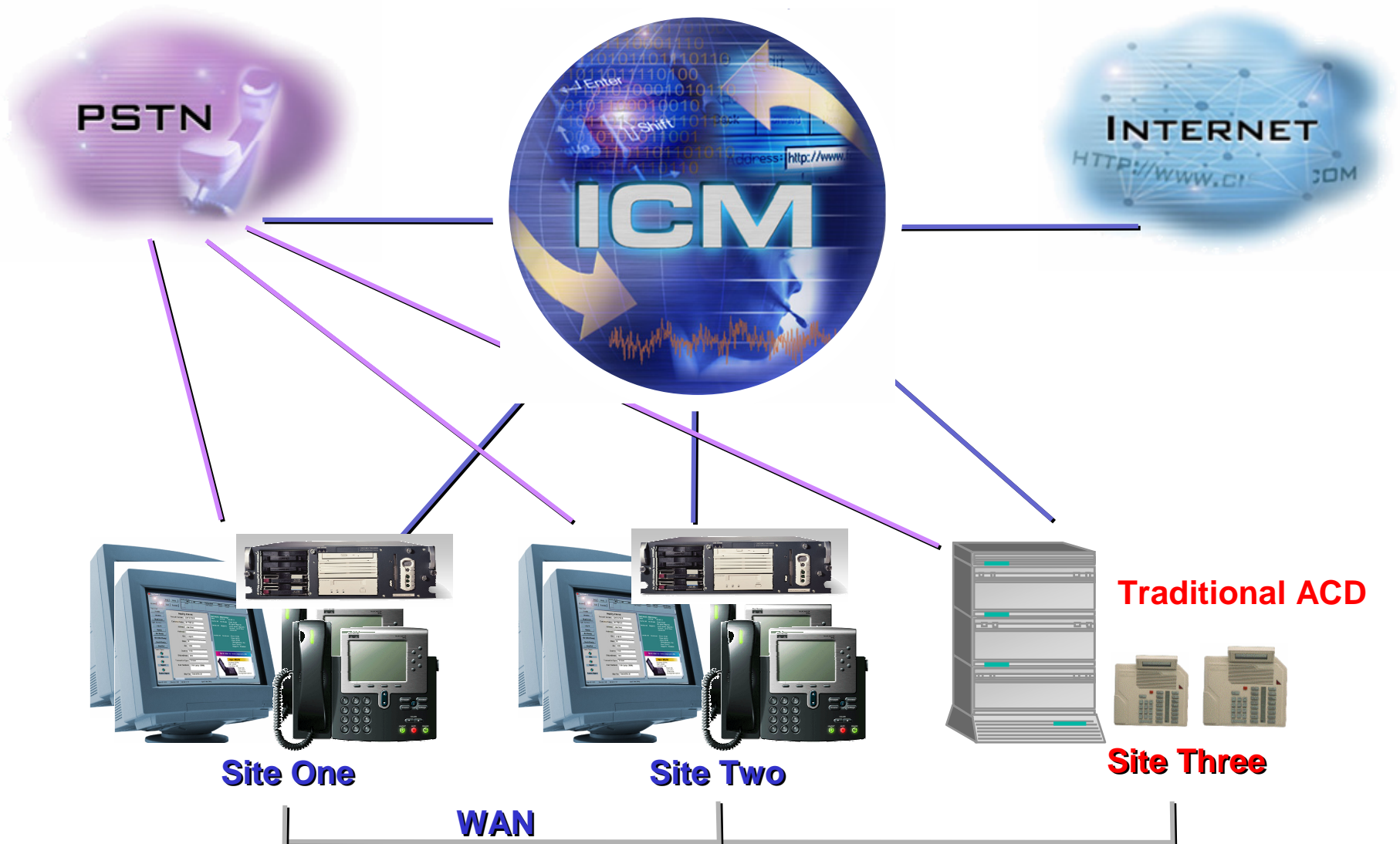
- Intelligent contact management
- Pre-routing
- Post-routing
- Skills based Routing
- Multi-site
- Multi-vendor
- CTI solutions
- Multi-channel
- Outbound



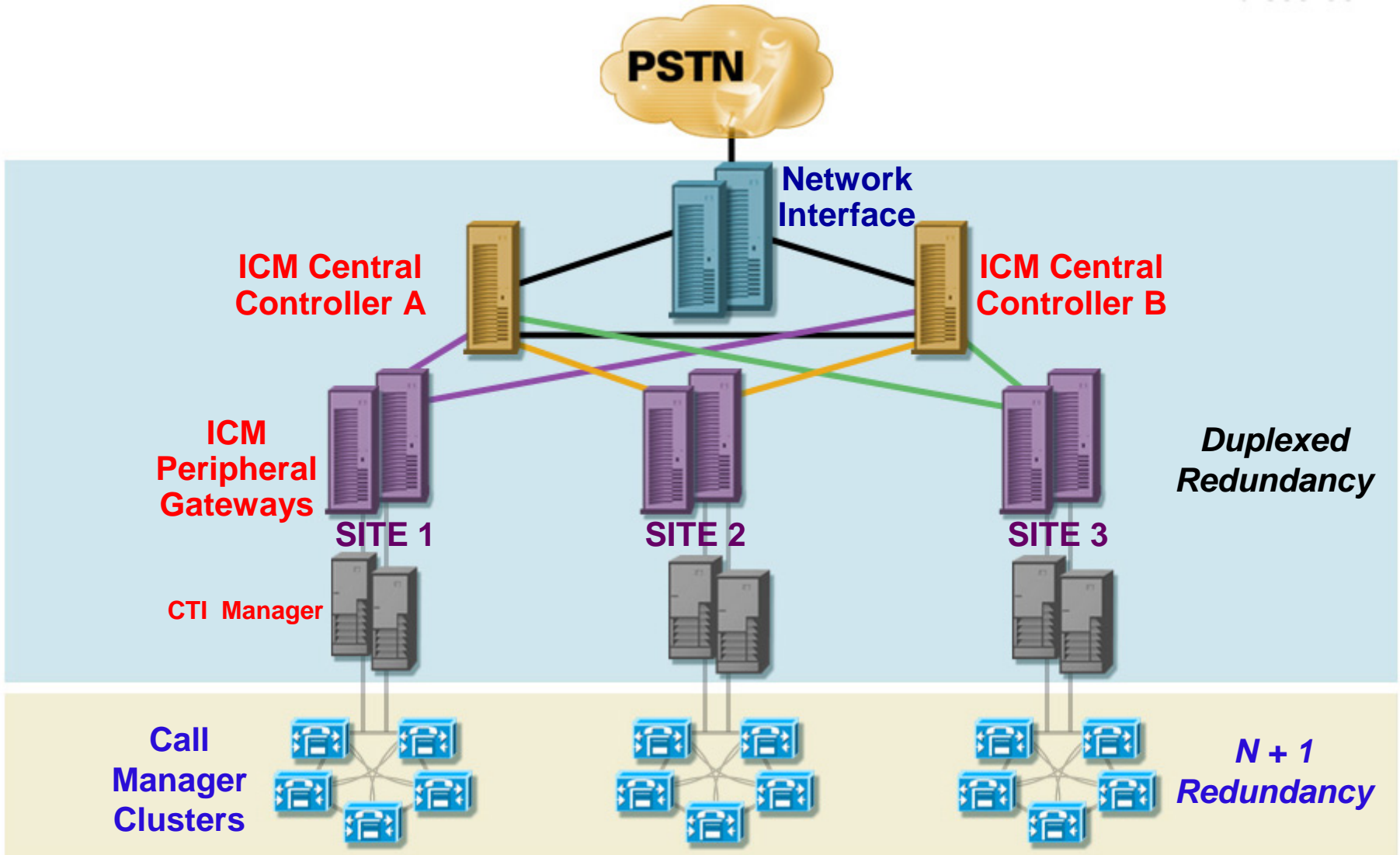
Cisco ICM is the foundation of Cisco IPCC Enterprise Edition

Virtual IP & TDM Contact Centre

Cisco.com



Complete Redundancy with Cisco IPCC



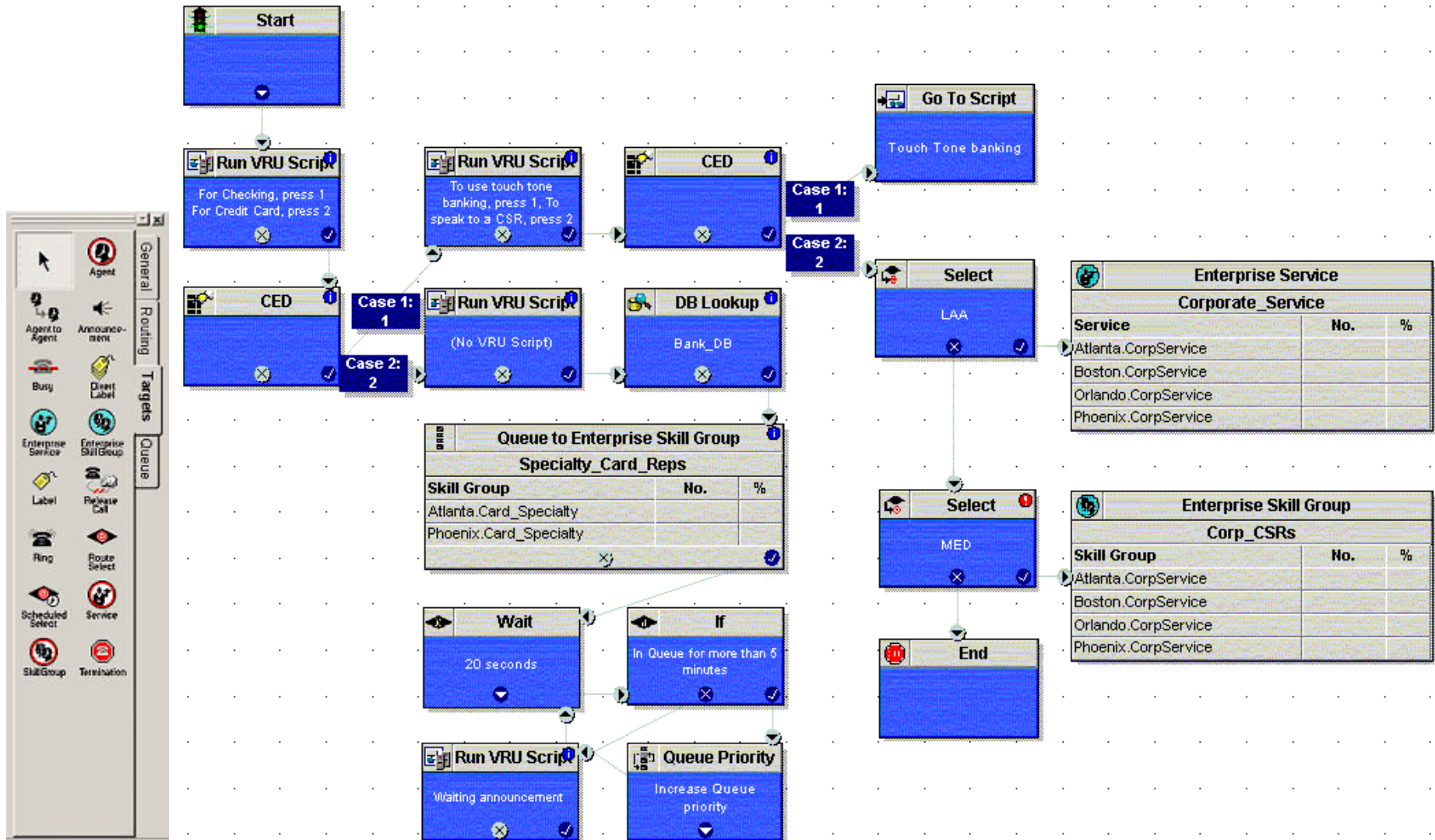
Centralized Management and Control

Cisco.com



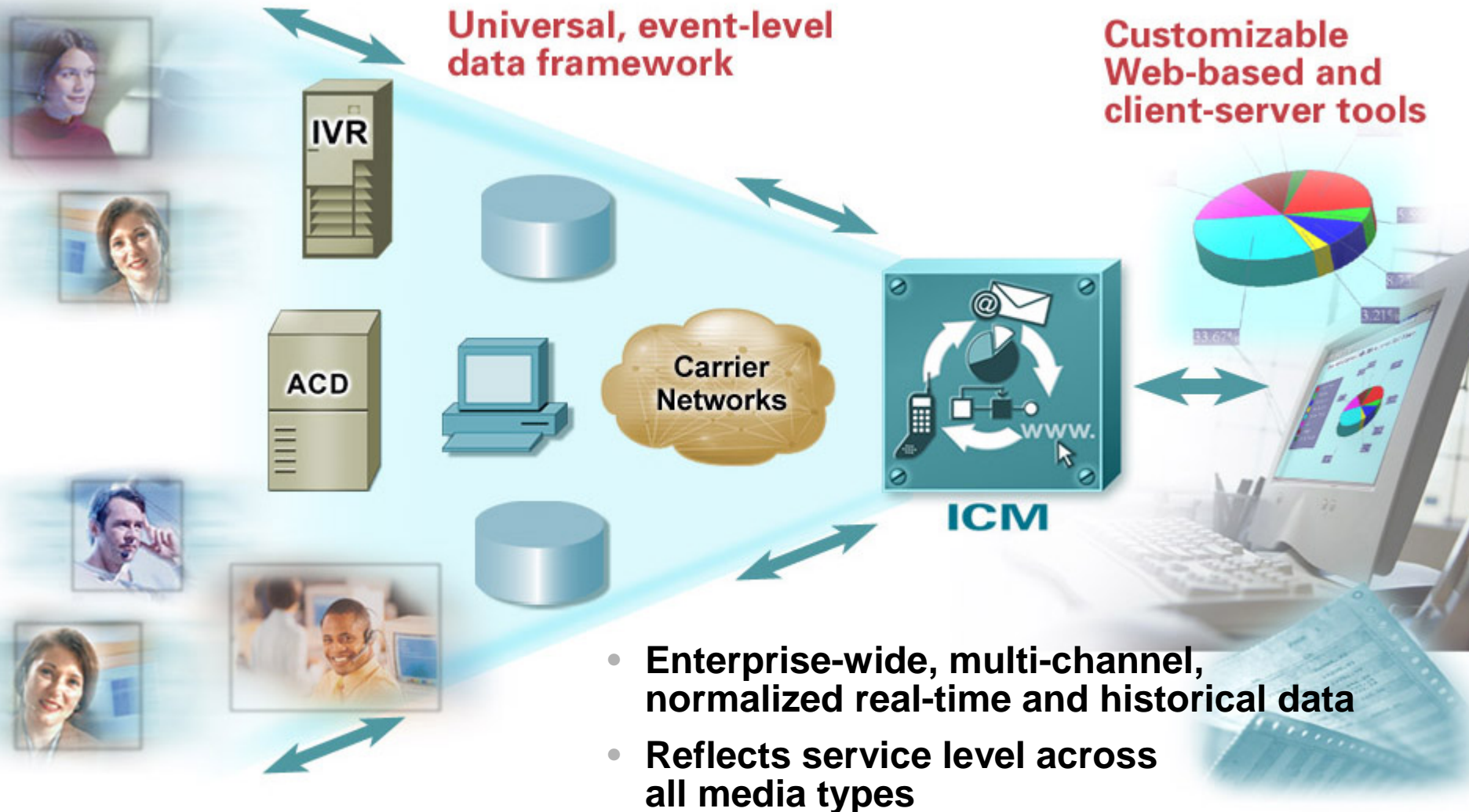
- **Implement business rules for all sites, all vendors, all channels**
- **Dynamic, real-time changes**
- **Integrated Inbound and Outbound contact management**
- **Global monitoring of entire enterprise**
- **Generate normalized, consolidated reports**

ICM Script Editor



Enterprise-Wide Consolidated Reporting

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- Enterprise-wide, multi-channel, normalized real-time and historical data
- Reflects service level across all media types

Cisco IPCC Enterprise Edition Reporting

Cisco.com

- 75 standard Cisco IPCC Enterprise reports
- Unlimited custom reports
- Browser based

Peripheral Agent Call Summary Daily Report

From: 6/12/02 00:00:00 To: 6/12/02 13:59:00

Agent Name / Skill Group	Incoming Calls							Outgoing Calls					Call Treatment					
	Calls Handled	Direct In	Trans In	Conf In	Re-Direct	Abn Ring	On Hold	Abn Hold	Ext Out	Int Out	Trans Out	Int Hold	Conf Out	Consult Call	Supp Assist	Emerg Assist	Barge In	Inter-cepted
Agent1504, Settings_2 (5824)																		
PCC_P01_1 Benefits.pri (5052)																		
6/11/02	2	0	0	0	0	2	1	0	0	1	1	0	0	0	0	0	0	0
6/11/02	1	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0
6/12/02	7	0	0	0	0	0	7	0	0	7	1	0	0	0	0	0	0	1
Skill Group Summary	10	0	0	0	0	2	9	0	0	9	2	0	1	0	0	0	0	1
PCC_P01_1 Default_Skill_Group (5073)																		
6/11/02	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
6/11/02	0	2	1	0	0	0	0	0	1	7	0	0	0	0	0	0	0	0
6/12/02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Skill Group Summary	0	2	1	0	0	0	0	0	4	7	0	0	0	0	0	0	0	0
Agent Summary	10	2	1	0	0	2	9	0	4	16	2	0	1	0	0	0	0	1
Agent1504, Settings_2 (5822)																		
PCC_P01_1 Benefits.pri (5052)																		
6/11/02	2	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6/11/02	1	0	0	0	0	3	1	0	0	1	1	0	0	0	0	0	0	0
6/12/02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Skill Group Summary	3	3	3	0	1	3	1	0	0	1	1	0	0	0	0	0	0	0
PCC_P01_1 Default_Skill_Group (5073)																		
6/11/02	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

- Agent
- Skill Group
- Services (Application)
- Call Type
- Queue Ports

- Real-time
- Half Hour
- Daily

- Single-site
- Enterprise

Cisco IPCC Enterprise Edition Phone Options

Cisco.com



7960

- **Six Lines** - Mix Directory Numbers or Features
- Display Area: Calling Information, Feature Access Via "Soft Keys," Additional Display Area for Value-added Services and Applications
- Info Key for "on-line" help with features
- Services key for XML based information
- Full Duplex Handsfree
- Built-in Headset Connection
- 10/100 BaseT, 3 Port Switch
- Inline Power compatible
- Adjustable foot stand



7940

- **Two Lines** - Mix Directory Numbers or Features
- Display Area: Calling Information, Feature Access Via "Soft Keys," Additional Display Area for Value-added Services and Applications
- Info Key for "on-line" help with features
- Services key for XML based information
- Full Duplex Handsfree
- Built-in Headset Connection
- 10/100 BaseT, 2 Port Switch
- Inline Power compatible
- Adjustable foot stand



Media Termination

- **Single Line**
- Eliminates Need For IP Phone
- Agent Desktop Application Provides Call Control and Displays for Agent
- Uses PC Soundcard for Audio

**IP Wireless
XML Agent /
Spv.
- Coming
Soon!**



Cisco CTI-OS Desktop – Agent

Cisco.com

ACD Features Call Control Features Assist Features Tools: Stats, Chat, Record, Mute, Bad Call

CallID	Status	DNIS	ANI	CED	DialedNu...	UserToUs...	WrapUp	Var1	Var2	Var3	Var4
4194747	Connected	5106	5108		5900			2222			

Agent	CallsHandledToday	TimeLoggedInToday	TimeTalkingToday	TimeHoldingToday	TimeReadyToday	TimeNotReadyToday	AvgTalkT
	4	1:45:59	0:05:13	0:00:01			

Skill Group Statistics	SkillGroupNumber	AgentsLoggedOn	AgentsAvail	AgentsNotR
	2003	3	0	1
	2004	3	0	1
	7150	1	0	0
	7200	2	0	0

Agent Statistics

Text Chat

- ActiveX components
- ACD and call control features
- Emergency call, agent statistics, chat
- Sample application with source code

Cisco CTIOS Desktop – Supervisor

Cisco.com

ACD Features Call Control Features Tools: Stats, Chat, Record, Mute, Bad Call

Agent Statistics

Chat

CTI OS Supervisor Softphone

Logon Agent State Dial/Answer Hold/Retrieve Alt/Reconn Conf/Transfer Tools

CallID	Status	DNIS	ANI	CED	DialedNu...	UserToUs...	WrapUp	Var1	Var2	Var3	Var4

Team Real-Time Status

State Team State Information

Name	AgentID	State	Time in State	Skillgroup
	3001	LogOut	9:46	0
	3002	Talking	0:30	2003
	3003	LogOut	82:19	0
	5106	LogOut	257:44	0
	5110	LogOut	207:49	0

Monitored Calls

CallID	Status	DNIS	ANI	CED	DialedNu...	UserToUs...	WrapUp	Var1	Var2	Var3
4194756	Active	5106	Unknown		5900			11525		

Real-time Agent Status

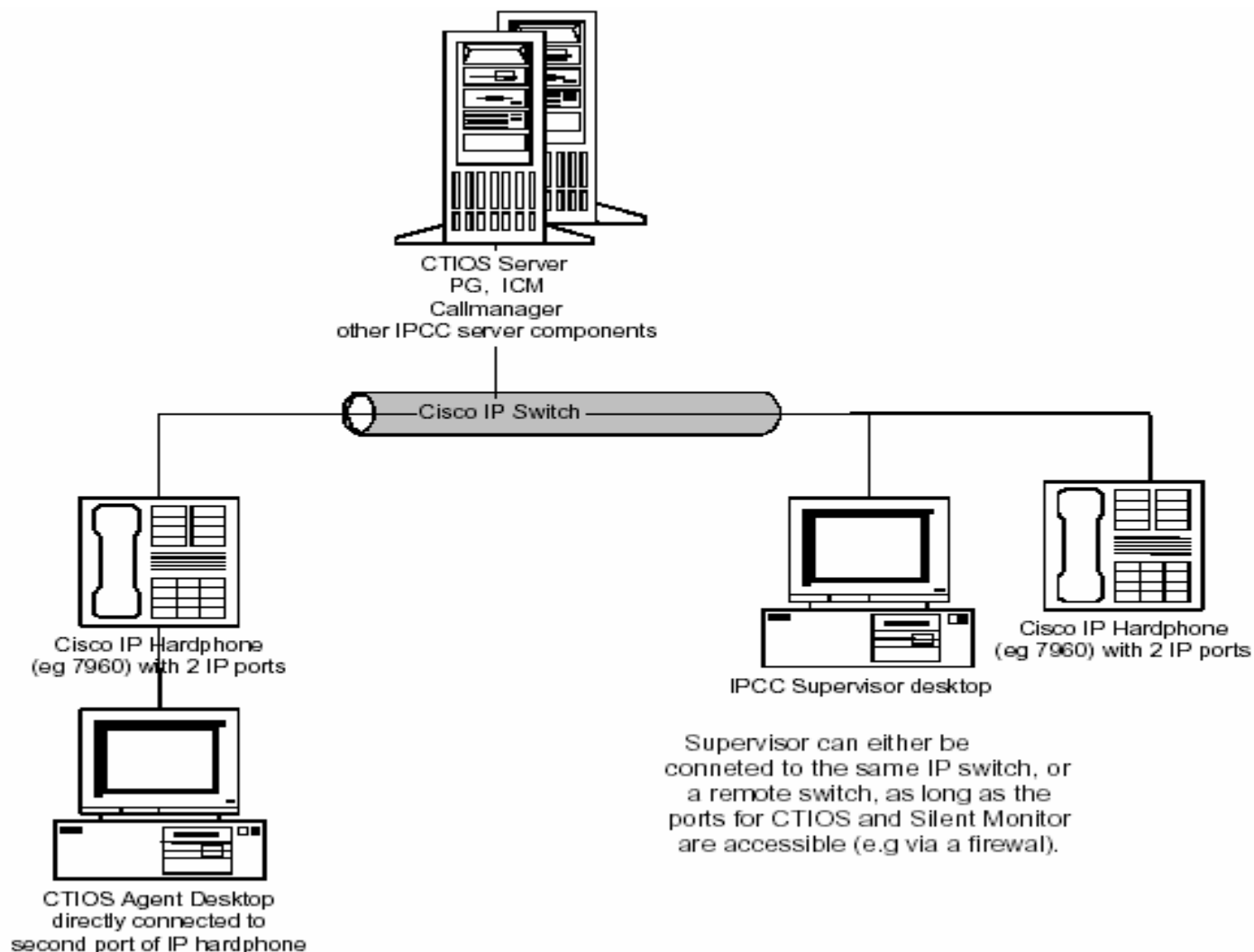
Select Agent's Call Details

5106: If you could, we'd appreciate it.

- ActiveX components
- ACD and call control features
- Barge-in, intercept, change agent state, statistics, chat
- Sample application with source code

New CTI-OS 5.1 Supervisor **Silent Monitor**

Cisco.com



IPCC Enterprise **Phone Agent**

Cisco.com

A backup to the agent desktop

- **7960/7940 Cisco IP Phones only**
- **Log in/out**
- **Ready/not ready**
- **Supervisor desktop shows agent state**
- **Supervisor can change agent's state**
- **Supervisor can silent monitor**



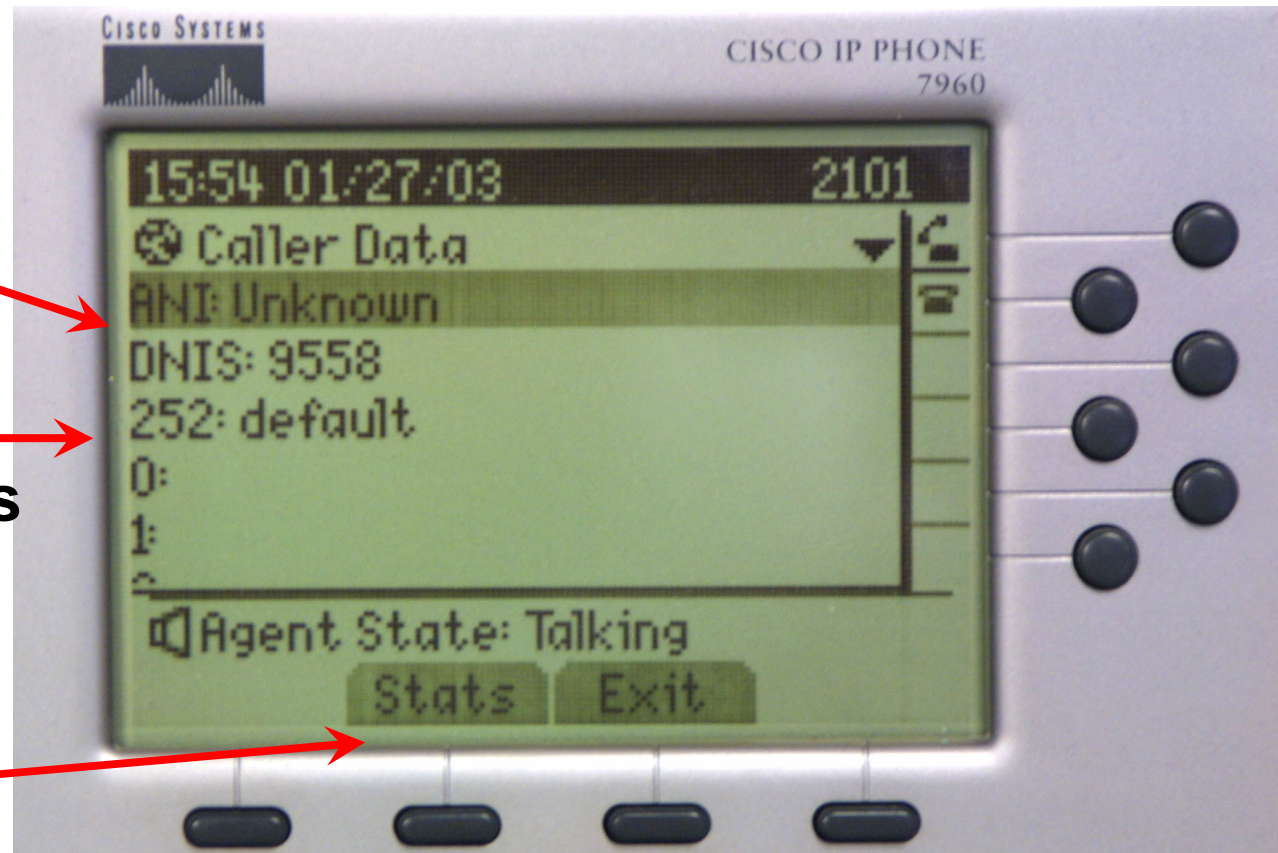
IP Phone Agent Enhancements Enterprise Data

- Enterprise data configurable to display on ringing; updated on answer

- ANI and DNIS displayed

- Customer Defined Variables (ECC and Call Variables)

- Skill Statistics



IP Phone Agent Enhancements

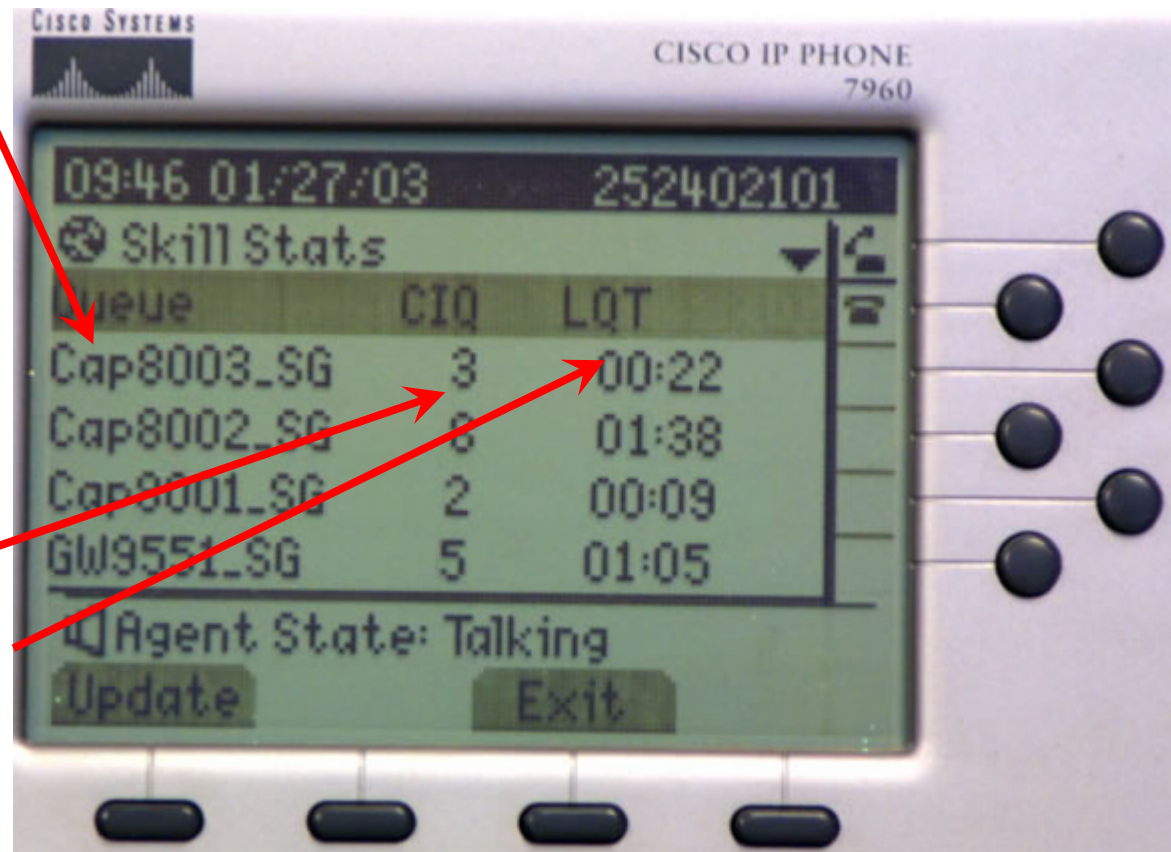
Skill Statistics

Cisco.com

- Agent's Skill Statistics configurable to display while logged in, on or off hook
- Statistics automatically updated (15 seconds configurable)
- Skills the Agent belongs to always displayed

- Configurable to display:

- # Call Handled Today
- # Agents Logged in
- Avg. Call Time
- Avg. Wait Time
- # Calls Queued Today
- # Calls in Queue
- Longest Call in Queue
- Max. Wait Time



CRM Integrated Desktop

Cisco.com

A single agent application for CRM and call Centre needs

Integrated Multi-channel Communications Toolbar

Call Control Features

Agent State Controls

The screenshot displays the Siebel Call Center application within a Microsoft Internet Explorer browser window. The browser's address bar shows the URL `http://ebiz.siebel.com/callcenter/start.swe`. The application interface includes a navigation menu with tabs for Home, Accounts, Contacts, Employees, Service, Assets, Campaigns, Opportunities, Quotes, Communications, Products, Calendar, and Activities. Below the menu, there are sections for 'Configurations' and 'Parameters'. The 'Configurations' section contains a table with columns for Name and Comments. The 'Parameters' section contains a table with columns for Name, Value, and Active. Arrows from the labels above point to the 'Integrated Multi-channel Communications Toolbar' (a toolbar with various icons), 'Call Control Features' (a set of icons for call management), and 'Agent State Controls' (a set of icons for agent status management).

Name	Comments
Call Center Durham	Siebel CTI for Durham Call Center employees; Siebel CTI Connect (Dialogic)
Call Center Emeryville	Siebel CTI for Emeryville Call Center employees; Siebel CTI Connect (Dialogic)
Call Center SM	
Call Center Sandy	Siebel CTI for Sandy Call Center employees; Siebel CTI Connect (Dialogic)
Multichannel configuration A	Voice, email, and web collaboration
Reception CTI Bridgepointe	Siebel Reception CTI for front desks and receptionist at Bridgepointe facility; Siebel CTI Connect (Dialogic)
Reception configuration A	Voice

Name	Value	Active
AutoLogin	FALSE	✓
AutoLoginCmd	SignOnGroup	✓
DialingFilter.Rule001	80125821->821	✓
DialingFilter.Rule002	80125822->822	✓
DialingFilter.Rule003	80125823->823	✓
DialingFilter.Rule004	80125824->824	✓
DialingFilter.Rule005	510788->1	✓

Call Treatment Applications – IP Queue Manager

Cisco.com

Provides call treatment to queued calls

- **Static announcements:** “All of our agents are busy...”
- **Dynamic announcements:** “There are 12 calls in queue. Your expected wait time is 15 minutes”
- **Prompts for caller data:** “Please enter your 6 digit account code.”
- **Prompts for route options:** “To leave a message press 1, to select from a list of frequently asked questions...”



IP Queue Manager (QM) and IP IVR - CRS Workflow Editor

Cisco.com

Step Library

Steps

Palette Window

Toolbar

Design Window

Flow

Variable Window

The screenshot displays the Cisco Customer Response Application Editor (CRS Workflow Editor) interface. The main window is titled "Cisco Customer Response Application Editor - [C:\Program Files\wfavvid\ICDBankDemo.aef]". The interface is divided into several sections:

- Step Library:** A vertical list of workflow steps on the left side, including "Annotate", "Call Subflow", "Day of Week", "Decrement", "Delay", "End", "Get Reporting Statistic", "Goto", "If", "Increment", "Label", "On Exception Clear", "On Exception Goto", "Set", "Switch", "Time of Day", "Session", "Contact", "Call Contact", "eMail Contact", "Http Contact", "Media", "User", "Prompt", "Grammar", "Document", "Database", and "ICD".
- Design Window:** The central workspace showing a workflow flowchart. The flow starts with "Conf_Acct_Num", followed by "Send Digit String", "Enter_pin", "Get Digit String", "Successful", "Timeout", "Unsuccessful", "DB_lookup", "DB Read", "Successful", "Connection Not Available", "SQL Error", "Play_info", "Switch Integer", "Repeat or Transfer", "Menu", "Output 1", "Goto Play_info", "Output 2", "Set trans_choice = 0", "XferToAgt", "Play Prompt", "Switch Integer", "Case1", "Select Resource", "Selected", "Set Data Type (ScreenPopTrig) to Enterprise Server", "Success", and "Connect".
- Variable Window:** A table at the bottom of the interface showing variables and their types.

Name	Type	Value	Attrib...
Acct_n...	String		
phWel...	Prompt		Para...
phMain...	Prompt		Para...
phInpu...	Prompt		Para...
phEnte...	Prompt		Para...
phEnte...	Prompt		Para...
phYour...	Prompt		Para...
phYour...	Prompt		Para...
phYour...	Prompt		Para...

Pre-defined ICD 3.1 Queuing Script

The screenshot displays the Cisco Customer Response Application Editor interface. The main window shows a script for a file named 'aa.aef' located at 'D:\DOCUME~1\GTHORN~2\CIS\LOCALS~1\Temp\aa.aef'. The script begins with a 'Start' block, followed by an 'Accept' block for the triggering contact. It then includes several comment lines: '/* Check if we support ASR ... */', '/* Initialize Prompts */', and '/* Play Welcome Prompt without ... */'. The script proceeds to create conditional prompts for 'menuPrompt', 'extnPrompt', and 'namePrompt', and then plays a 'welcomePrompt'. A 'MainMenu' section follows, containing an 'If' statement that checks 'asr || AlwaysEnableDialByName'. If true, it plays a 'prompt' and sets 'prefixPrompt = P[]'. If false, it performs 'Simple Recognition' and plays a 'prefixPrompt + SP[AA\AASorry]' prompt. The script then calls 'Call Redirect' with 'operExtn' and enters another 'If' statement for 'attempts < MaxRetry'. If true, it plays a 'prefixPrompt + DP[1000]' prompt. The script concludes with an 'End' block.

The left sidebar shows a tree view of the application's components, including 'Session', 'Contact', 'Call Contact', 'eMail Contact', 'Http Contact', 'Media', and 'User'. The 'Contact' folder is expanded, showing various actions like 'Accept', 'Get Contact Info', 'Set Contact Info', 'Reject', and 'Terminate'. The 'Call Contact' folder is also expanded, showing actions like 'Get Call Contact Info', 'Call Hold', 'Call Redirect', 'Call Unhold', and 'Place Call'.

At the bottom of the window, a table displays the current state of variables:

Name	Type	Value	Attrib...
welco...	Prompt	P[AAWelcome...	Para...
extrXfer	String		

CRS (IP-IVR) Architecture

Cisco.com

Application Server

ICD ASR TTS HTTP

Queuing Speech ICM

Authentication Web Browser Web Server

DB Telephony Email

Editor Engine WFF AppFW

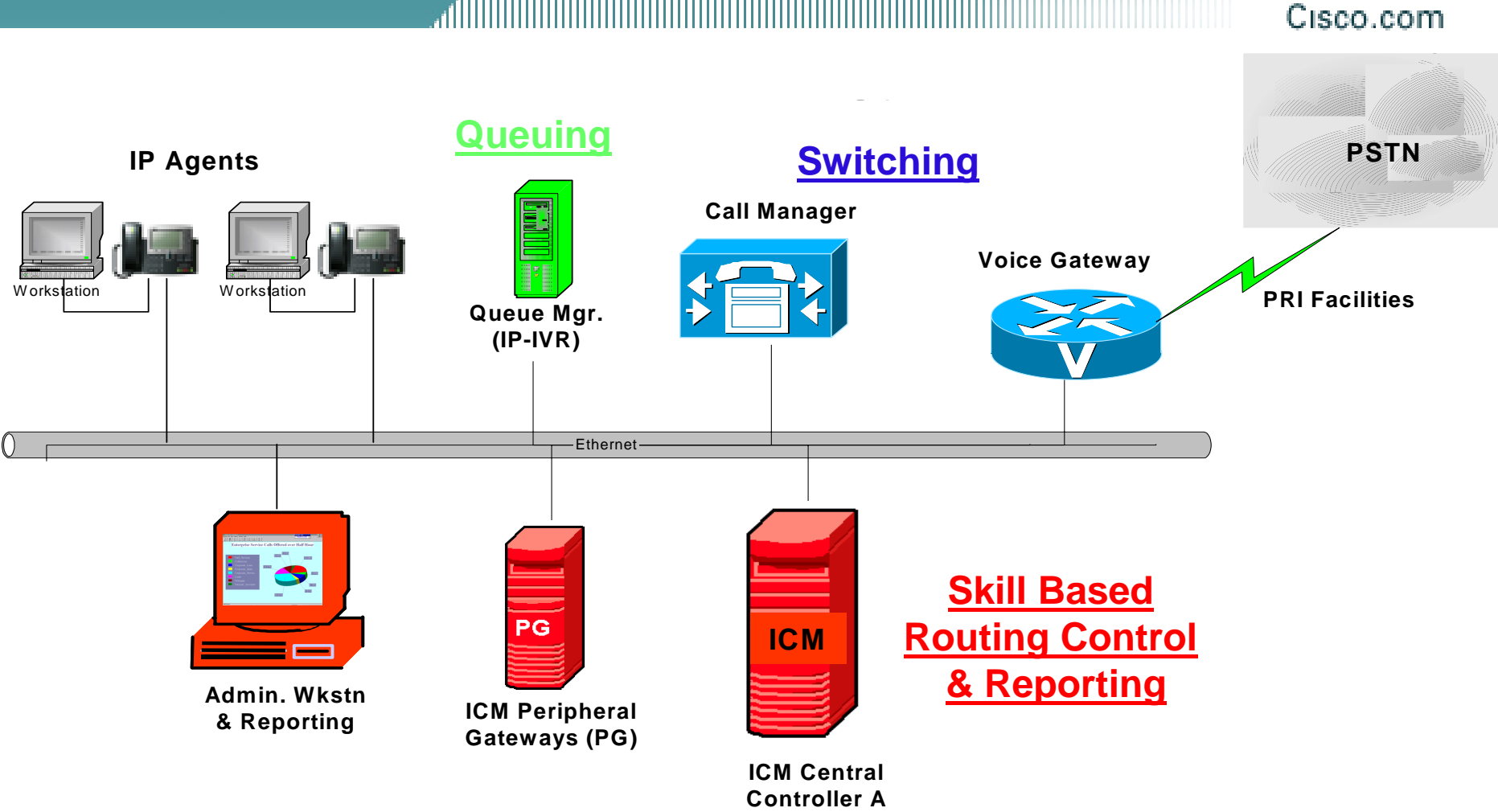
Database JTAPI ICM

Enterprise DataBase

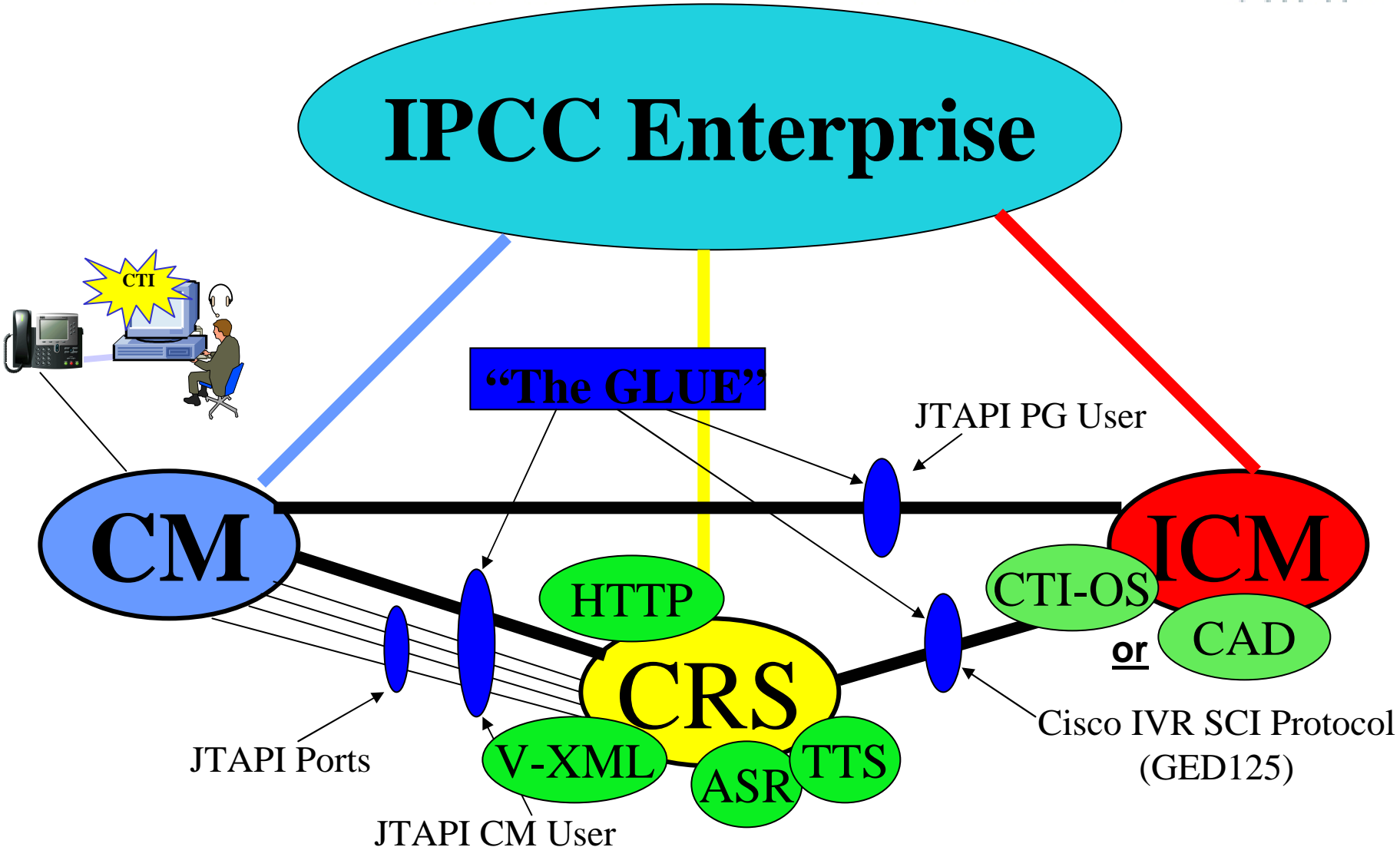
Cisco CallManager



Typical Single Site Cisco IPCC LAN Topology



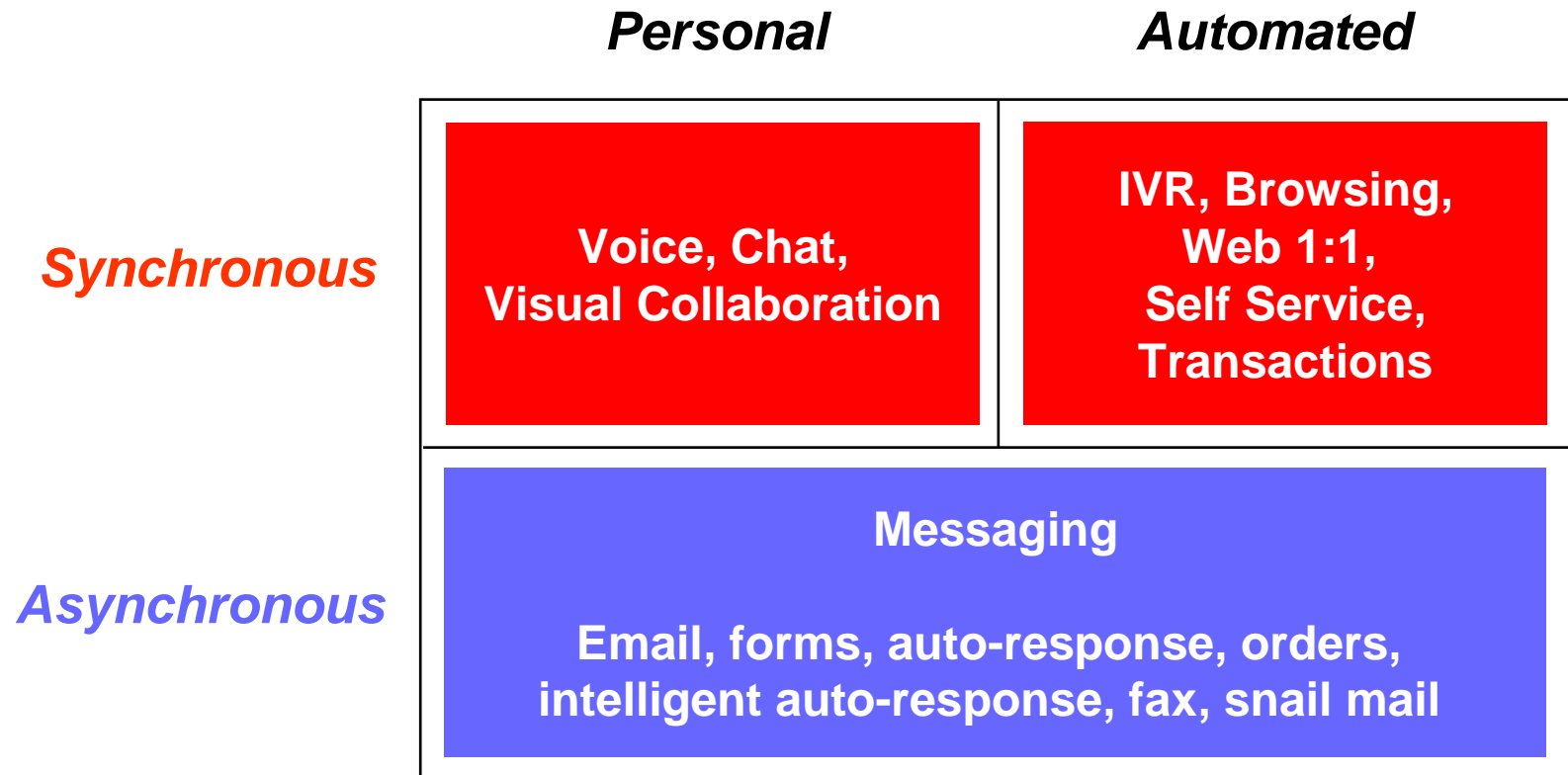
So how does IPCC Enterprise “glue” together



Agenda

- Cisco in the Contact Centre Market & C.I.N
- AVVID & VoIP migration towards an IPCC solution
- IPCC Express Review & What's New
- IPCC Enterprise Review & What's New
- **Multimedia Contact Architecture Review**
- Demonstrations of the Cisco IPCC Enterprise Multimedia Solution

Customer Interactions

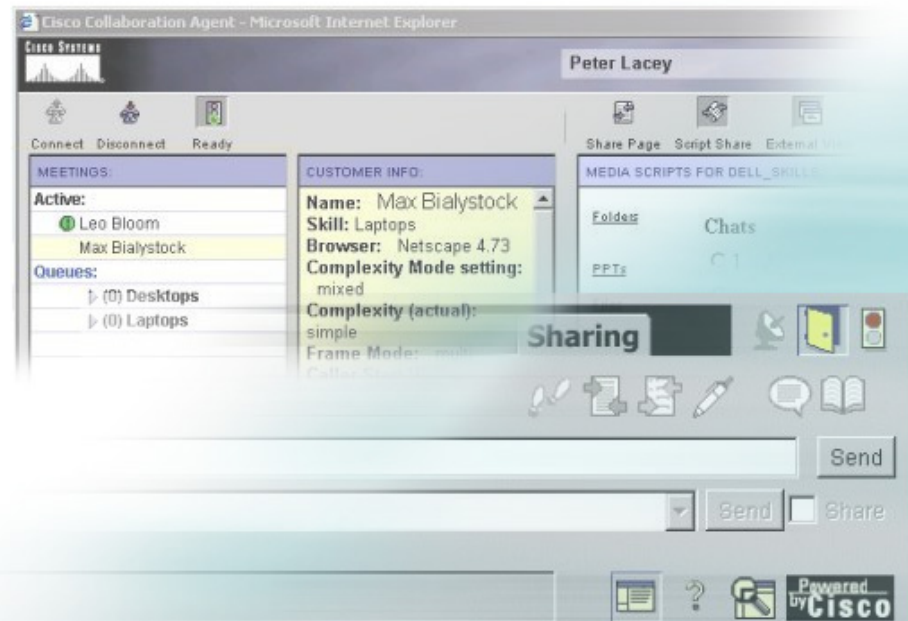


Simple Collaboration

Available for Multi-Session Agents

Cisco.com

- **Page share:** Agent and customer can share web pages with each other
- **Text chat:** Session participants can use text chat to communicate during a collaboration session



Complex Collaboration

Available in Single-Session Agent Desktop Only

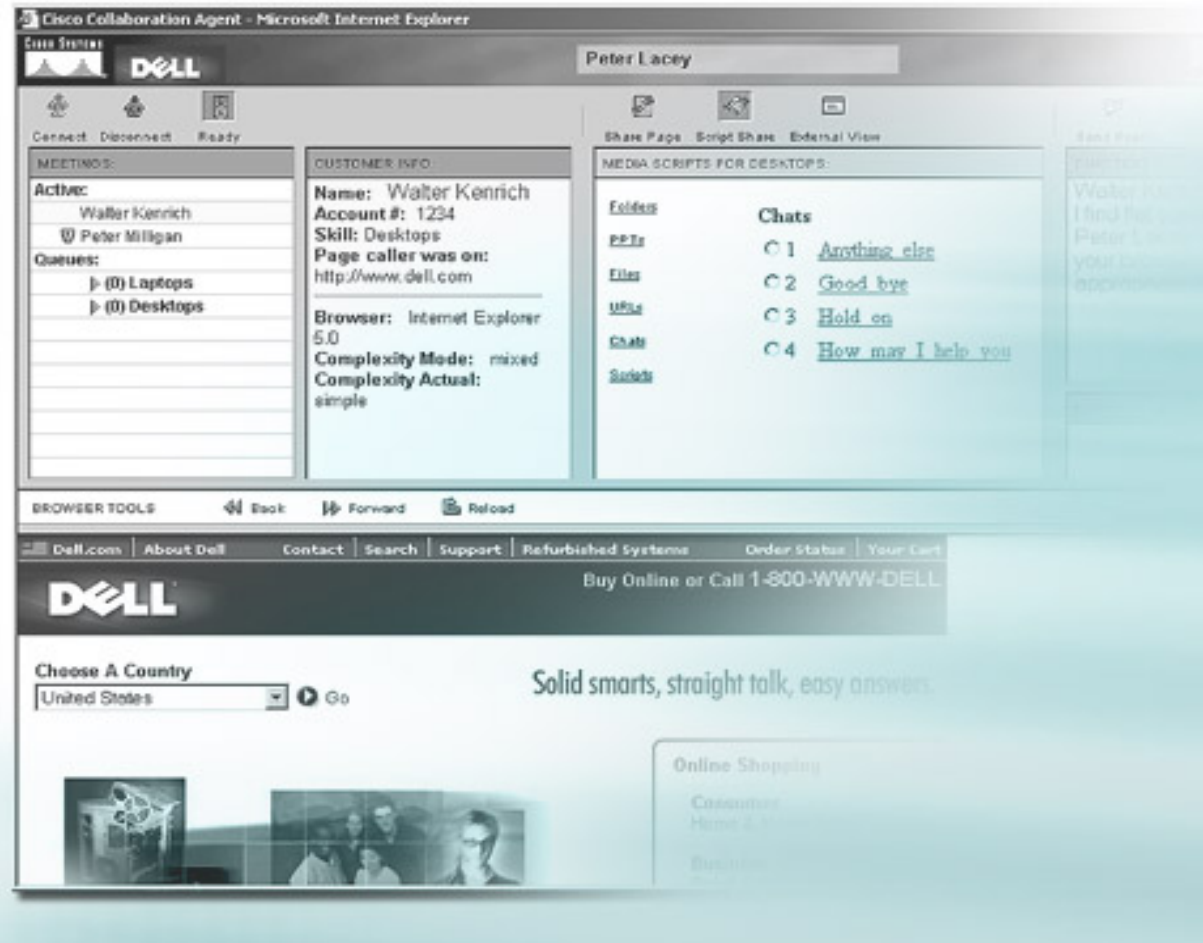
Cisco.com

- **Follow-me browsing:** Allows one participant to follow wherever the other participant leads
- **Form share:** Agent and caller can fill out Web based forms together
- **Remote control:** No need to “train the caller”, agent can work the caller’s browser remotely
- **Application sharing:** Share any Windows-based application
- **White-boarding:** Free hand drawing with custom drawing elements

Web Collaboration Agent Interface

Cisco.com

- Runs in the browser—no install required
- Scripted environment insures user interface is easy to learn and easy use
- Sharing content is as easy as clicking a link



Cisco Outbound **Dialer** Option

Outbound call blending and predictive dialing

- **Centralized management of inbound and outbound contacts**
- **Centralized campaign management and control**
 - **One Campaign Manager, regardless of how many contact Centre sites**
- **Outbound dialing modes**
 - **Preview, predictive and progressive**
- **Advanced features (personal callback, blending)**
- **Inbound & outbound integrated reporting**
- **Cisco Agent Desktop outbound controls**
 - **Can be integrated to CRM and other third-party CTI solutions**
- **Fault tolerant architecture**

Cisco Outbound Option Skill Modes

Available skill modes

INBOUND
PREDICTIVE_ONLY
PREDICTIVE_BLENDED
PREVIEW_ONLY
PREVIEW_BLENDED
PROGRESSIVE_ONLY
PROGRESSIVE_BLENDED

- **Cisco IPCC Enterprise Edition monitors inbound activity and moves skills in and out of outbound modes via scripts**
- **Eliminate the need to manually monitor contact center / skill group activity**
- **Centralized automated skill group handling allows real time transitions between modes based on your business rules**

EXAMPLES

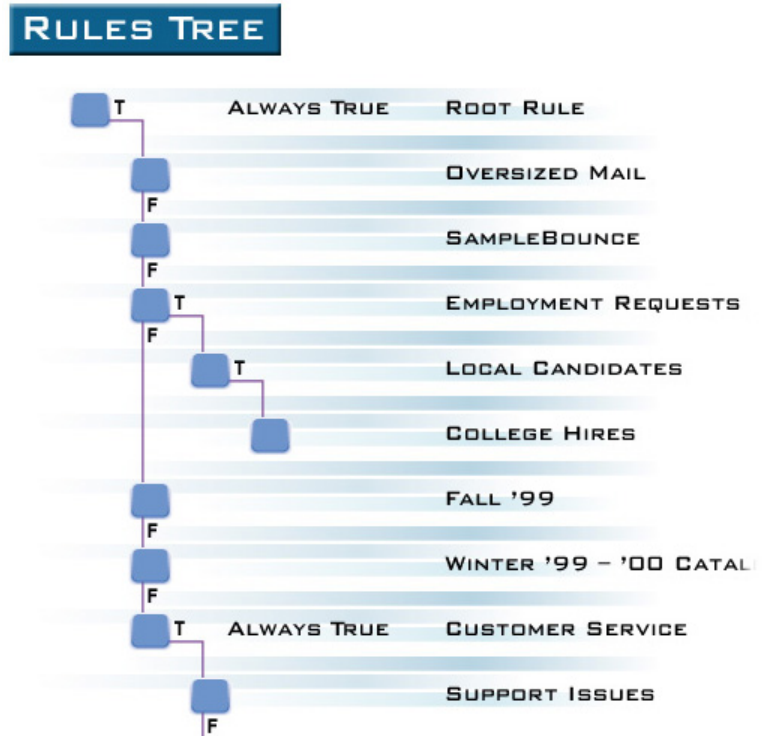
Time of day

Agent availability

Calls in queue

Cisco E-Mail Manager Option Features

- **Powerful processing rules**
 - Hierarchical, branching rule logic
 - Graphical rule building environment
 - Sophisticated message tracking
- **Flexible user administration**
 - Distributed administration/user roles
 - Bulk user management
 - Automated service level management
 - Real-time reporting queue monitor
- **Flexible user interface**
 - Thin browser-based client
 - MailTrack
 - Dynamic templates
 - Multi-queue push routing



Cisco E-Mail Manager Option Agent Response Screen

Cisco E-Mail Manager Agent Desktop - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Location: <http://localhost:8082/uiroot/uicommander?req=cem.toPage.getIndex>

Members WebMail Connections BizJournal SmartUpdate Mktplace

CISCO SYSTEMS **Response** **Active 1** **Answered 0** **Longest Waiting 7d:01:54:58** **Logged In 0:07:35** Help

Manage View

Save Draft Reassign Escalate Exit Message Notes Tracking History Sender History

From: To: Cc: Bcc: Subject:

Time Sent: Thu Aug 23 14:20:09 EDT 2001 Tracking Number: YT20010823_0000000203
Status: Priority: Last Note: *auto suggest a sql key <itable>* Last Owner: software Categories: softcoat

Templates **Attachments** **Categories**

Personal Templates: Suggested Templates:

Insert Template Preview Template Browse Libraries

Original Message:

Response:

Send Reply Insert Original Check Spelling Insert Signature E-Mail Locale

Applet eTextEditResp running

Cisco Contact Centre Customers

INDUSTRIES



Financial



Government/
Education



Healthcare/
Insurance



Technology/
Telecom



Manufacturing/
Utility



Retail/
Delivery

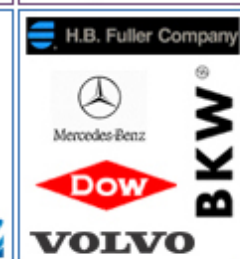


Travel/
Entertainment

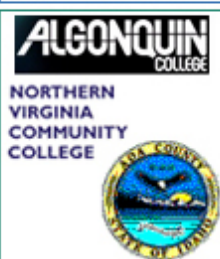
ICM
Enterprise



IPCC
Enterprise



IPCC
Express



IPCC
Web &
E-Mail
Option



Cisco **Canada** Contact Centre Customers

INDUSTRIES



Financial



Government/
Education



Healthcare/
Insurance



Technology/
Telecom



Manufacturing/
Utility



Retail/
Delivery



Travel/
Entertainment

ICM
Enterprise

CIBC
CitiBank
TD

HRDC

Sears

IPCC
Enterprise

Cartier
Dunhill
Financial

City of
Mississ.
SAIT

Canada
Life
La Capitale

Bell
Canada
Watts
AT&T

IPCC
Express

City of
Hamilton

Johnson
Insurance

CGI
Infostream
IBM

CAP
Gemini

Kraft

Hudsons
Bay

Air Canada
Jazz

GTAA

IPCC
Web &
E-Mail
Option

HRDC
(E-Mail)

CSBC
(Web)

LGS
(CeM)

IPCC Enterprise **Multi-Channel** Features

- Summary

Cisco.com

- Cisco IPCC Enterprise Edition script control of routing and queuing across all channel types
- **Multi-channel routing**, queue control and reporting
- **Universal queue** for Cisco IPCC Enterprise Edition
- Agent can log into multiple channels
- Cisco IPCC Enterprise Edition can move agent from one channel to another
- **Interruptability**
 - Agents working on e-mail can be interrupted to take voice, collaboration or chat contact
- Service level reporting across channel types



Cisco **IP Contact Centre** Enterprise Edition

Cisco.com

- **Mid-to-large market IP-ACD Cisco solution**
- **Fully scalable architecture**
- **Intelligent Contact Management & Skills Based Routing**
- **Integrated Enterprise CTI**
- **Web collaboration**
- **E-mail, fax and voicemail**
- **Outbound dialing**
- **Facilitates smooth TDM to IP migration**
- **Enterprise Wide Reporting**



Pervasive Computing

Customers Staying “Connected”

Cisco.com

- **Customer Trends**

60% of U.S. and EMEA population, aged 15–50 will be “connected” 6+ hours/day in 2007.
(Source: Gartner)

1.7B worldwide, 245M U.S. subscribers to wireless services by 2006 (Source: Strategy Analytics)

- **Technology trends (using SIP & Wireless)**

Ubiquitous broadband

Buddy lists (presence) and Instant Messaging

Wireless LAN (802.11)

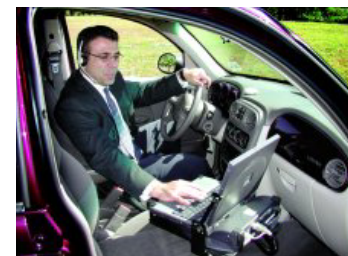
- **Business Impact**

Strategic, proactive customer care

Responsiveness drives market share



IPAQ Pocket PC
H3600 Series



CISCO SYSTEMS

