Unified Communications Solutions for Contact Centers

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Cisco Unified Contact Center Solutions, Asia Pacific

Agenda

Contact Center Challenges

Cisco Unified Contact Center Overview

Roadmap

Summary

Q&A

Contact Center Business Challenges

Operational Efficiency

Increased web & voice self-service and resolution time

Virtualized operations

Integrating CRM strategy

Multichannel integration

Migration to advanced speech applications

Employee Effectiveness

Increased resource utilization

Reduced agent attrition/Increased employee satisfaction

Aligning agents around customer segmentation

Automation through real-time analytics

Contact Center Business Challenges

Revenue Growth

Reduced cost for communications infrastructure

Capture lost revenue opportunities (cross-sell/up-sell)

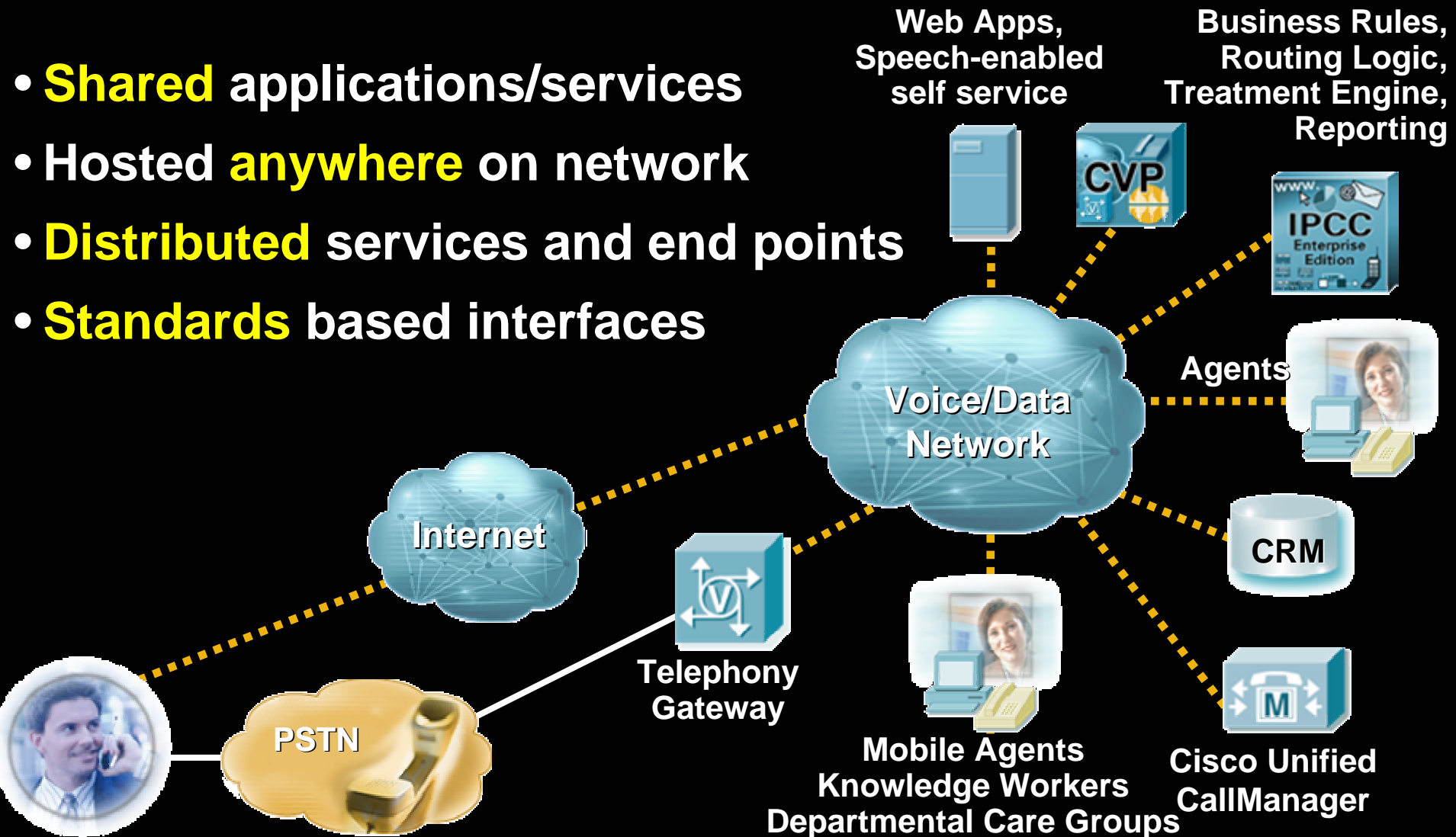Increased share of customer spend

Customer Satisfaction

Improve customer satisfaction and reduce cost

Consistent personalized service

Increased customer loyalty

Cisco Unified Customer Contact Center

- **Shared** applications/services
- **Hosted** **anywhere** on network
- **Distributed** services and end points
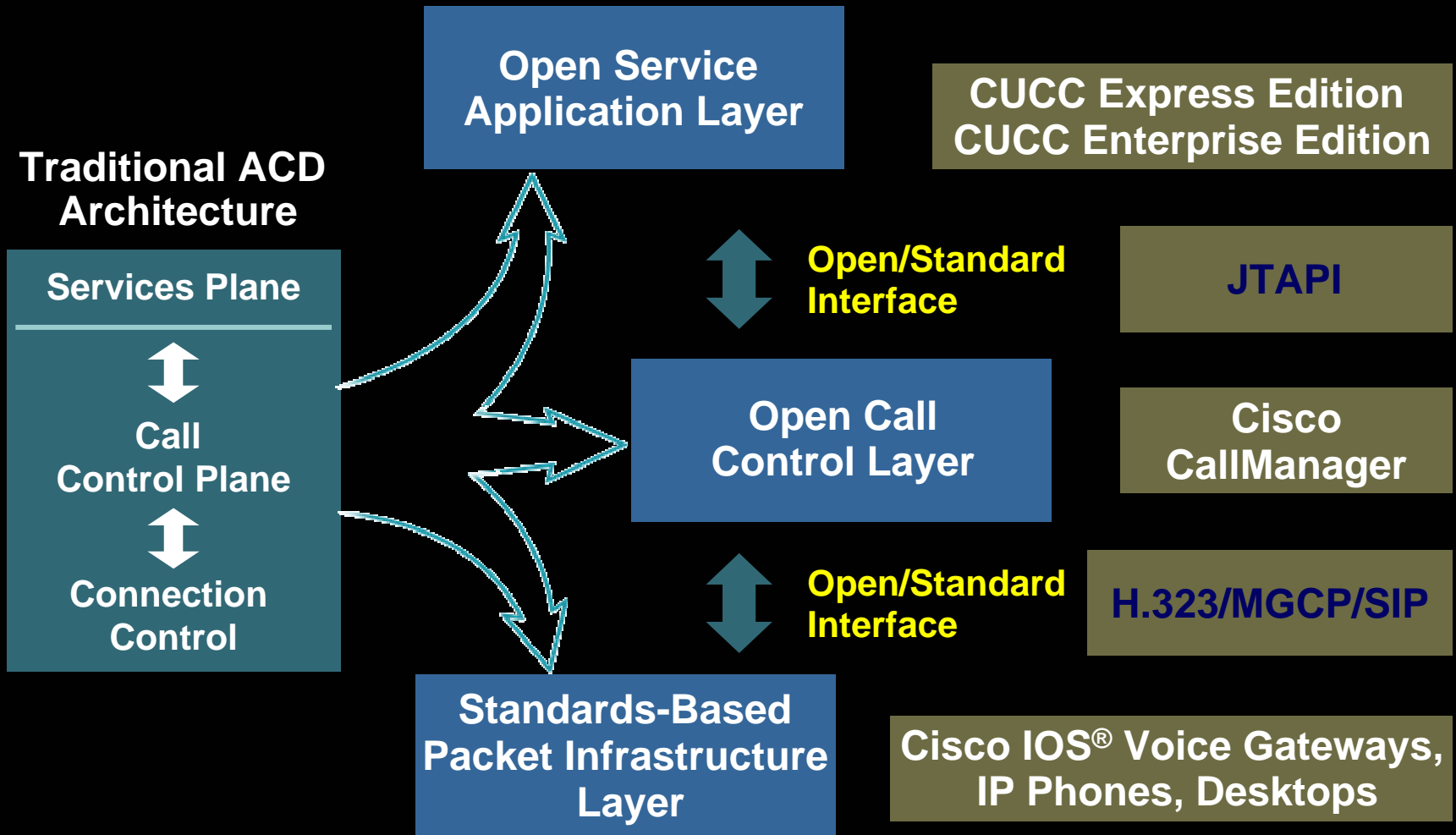- **Standards** based interfaces

Web Apps, Speech-enabled self service

Business Rules, Routing Logic, Treatment Engine, Reporting

CVP

IPCC Enterprise Edition

Voice/Data Network

Agents

Internet

CRM

Telephony Gateway

Mobile Agents Knowledge Workers Departmental Care Groups

Cisco Unified CallManager

PSTN

Cisco Unified Contact Center Overview

Cisco Unified Contact Center (CUCC) Architecture

Open Service Application Layer

CUCC Express Edition CUCC Enterprise Edition

Traditional ACD Architecture

Services Plane

Open/Standard Interface

JTAPI

Call Control Plane

Open Call Control Layer

Cisco CallManager

Connection Control

Open/Standard Interface

H.323/MGCP/SIP

Standards-Based Packet Infrastructure Layer

Cisco IOS® Voice Gateways, IP Phones, Desktops

Cisco Unified Contact Center Solutions: Cisco Product Portfolio

ACD
- Mid-Market → **CUCC Express Edition**
- Enterprise → **CUCC Enterprise Edition**
- Service Provider → **CUCC Hosted Edition**

Contact Management
- Enterprise → **ICM Enterprise Edition**
- Service Provider → **ICM Hosted Edition**

Self Service
- Mid-Market → **IP-IVR**
- Enterprise → **CVP**
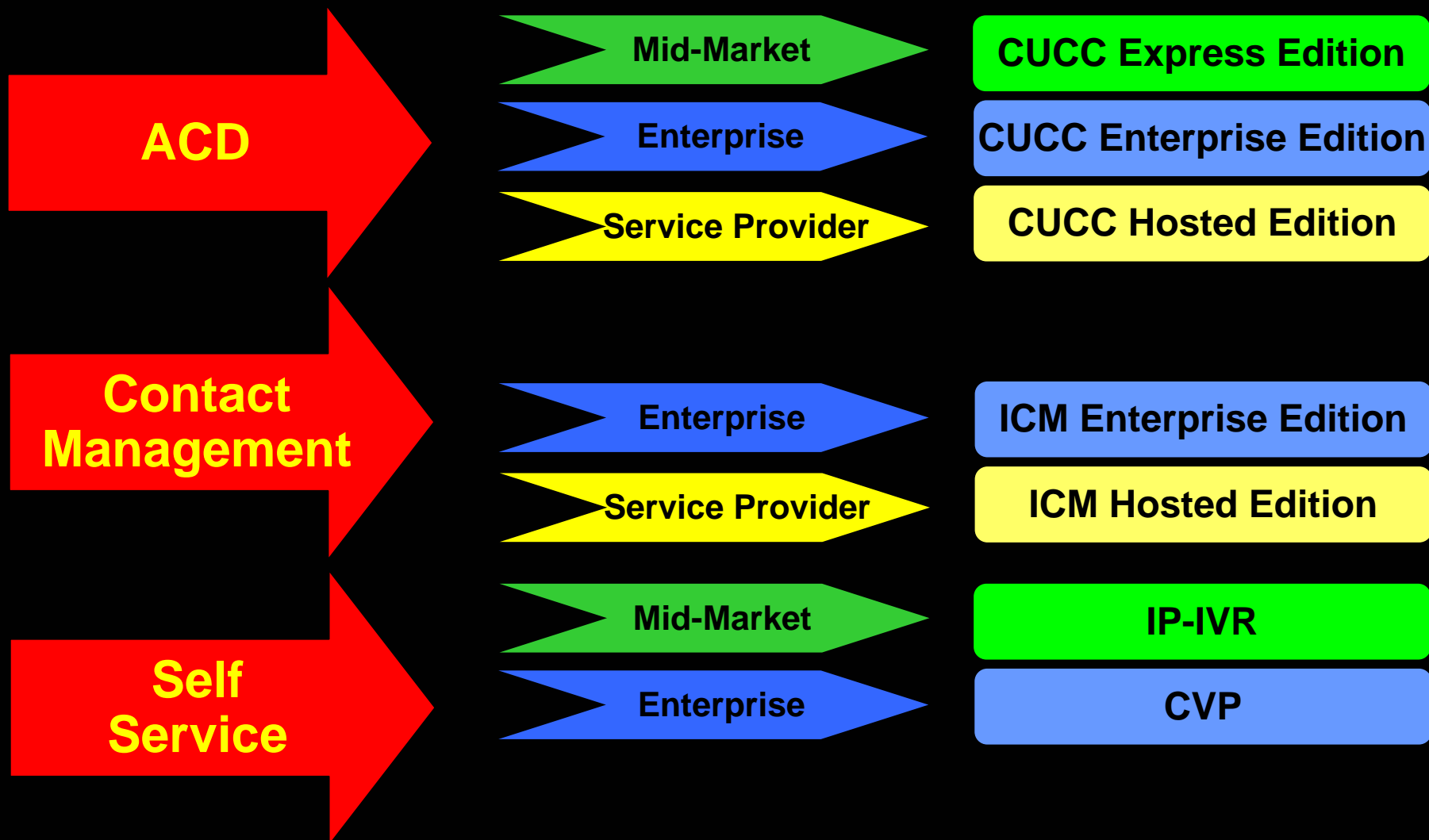
Cisco Unified Contact Center Solutions: Cisco ACD Product Portfolio

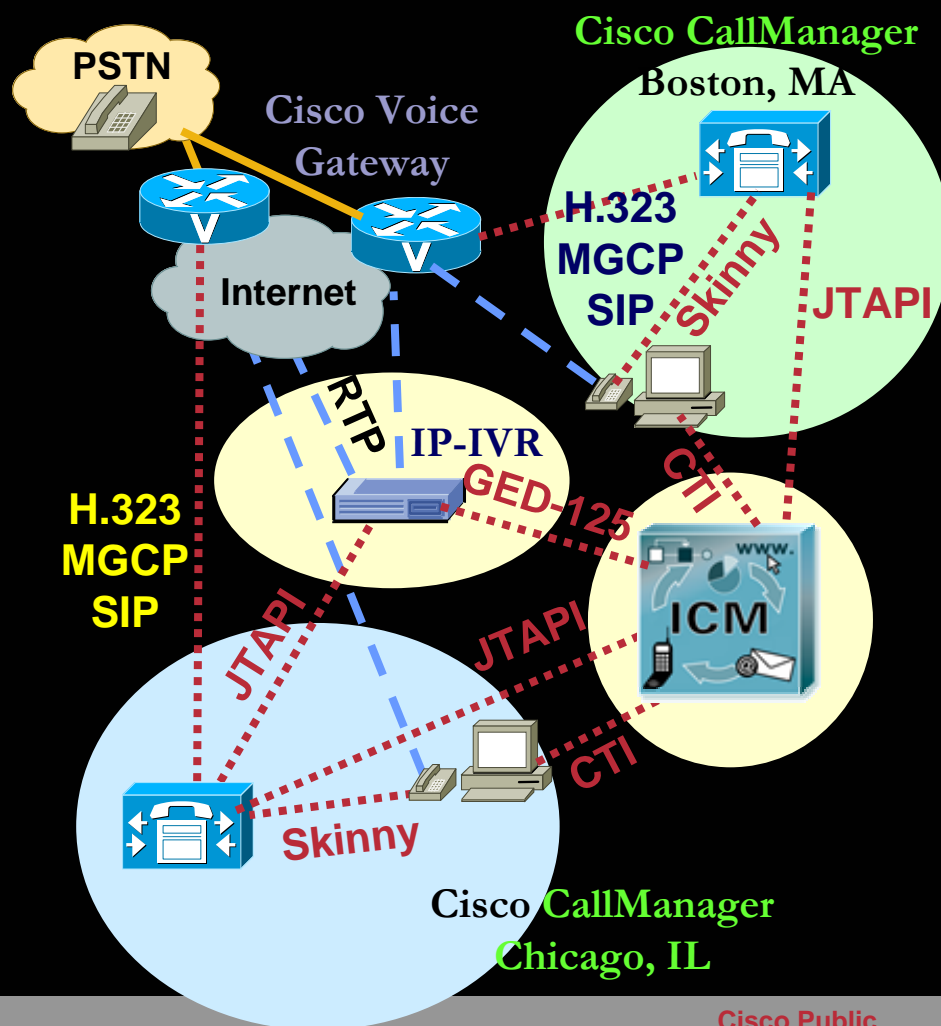|	CUCC Express	CUCC Enterprise
Supported Deployment Models	Single Site Multi-Site Centralized Cluster over the WAN	Single Site Multi-Site Centralized Cluster of the WAN Multi-Site Distributed
Agent CTI Desktop Options	Cisco Agent Desktop	Cisco Agent Desktop CTI Toolkit / CTI-OS CRM Integrated
Supported Agents	Up to 300 Agents (4.0) (Nodal)	6,000+ Agents (Multiple Clusters)
Queue Options	IP-IVR (Integrated)	IP-IVR or CVP
Channels	Voice Only	Voice, Web, E-Mail, & Outbound

Cisco Unified Contact Center Solutions: Cisco ACD Product Portfolio

**CUCC Express
Centralized Deployment**

PSTN

Cisco Voice Gateway

Internet

RTP

IPCC Express Server

H.323 MGCP SIP

JTAPI

JTAPI

RMI

Skinny

Cisco CallManager Dallas, TX

**CUCC Enterprise
Multi-Site Distributed Deployment**

Cisco CallManager Boston, MA

PSTN

Cisco Voice Gateway

Internet

H.323 MGCP SIP

Skinny

JTAPI

RTP

IP-IVR

GED-125

CTI

H.323 MGCP SIP

JTAPI

ICM

JTAPI

CTI

Skinny

Cisco CallManager Chicago, IL
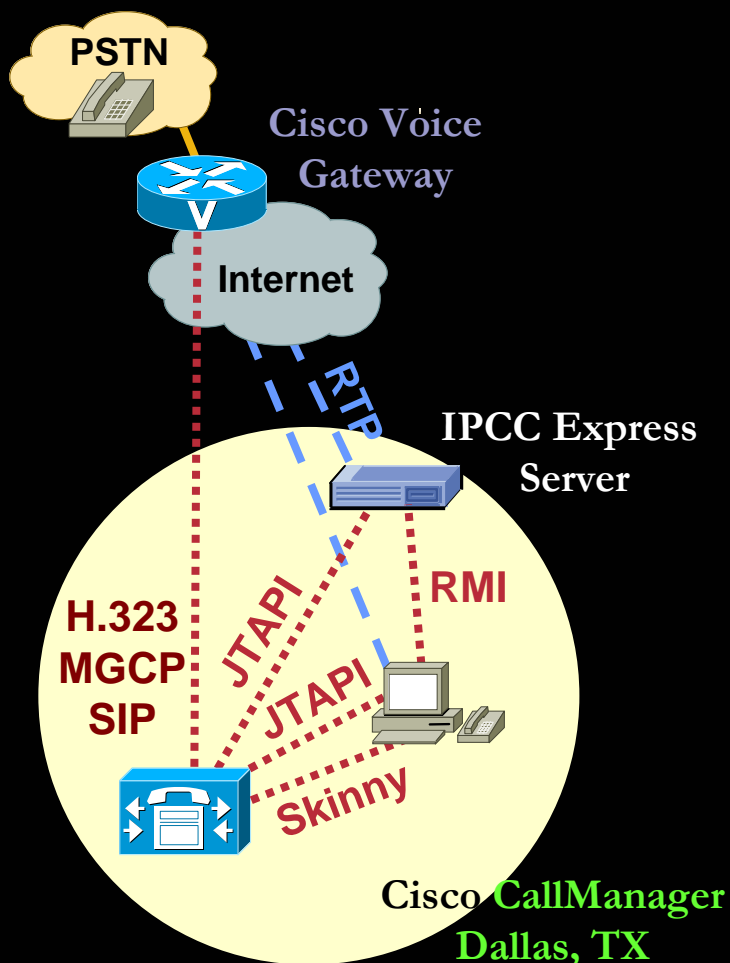
ICM Enterprise

Cisco Unified Contact Center Solutions: ICM Enterprise

Cisco's Intelligent Contact Management (ICM) solution provides multi-channel, multi-vendor, multi-carrier virtual contact center routing, reporting and CTI.

ICM is the core routing product of the Enterprise products for Cisco, originally acquired from *GeoTel Communications* in 1999, it is the standard enterprise contact routing:
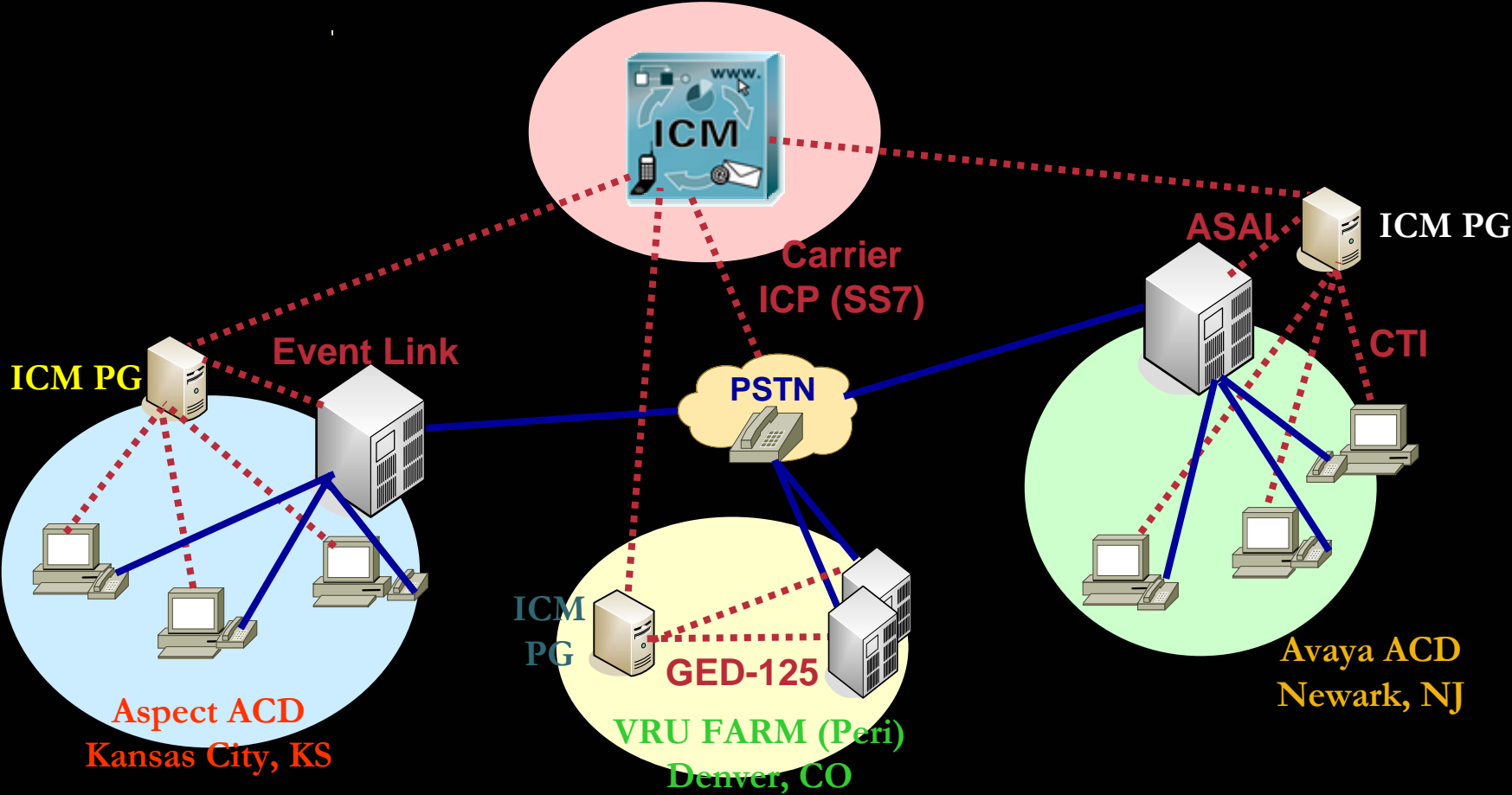
- **Used by hundreds of the largest contact centers around the world in every industry**

Cisco Unified Contact Center Solutions: ICM Enterprise

- **Cisco's Intelligent Contact Management (ICM) solution provides multi-channel, multi-vendor, multi-carrier virtual contact center routing, reporting and CTI.**

- **ICM is the core routing product of the Enterprise products for Cisco, originally acquired from *GeoTel Communications* in 1999, it is the standard enterprise contact routing:**

    ICM Hosted Edition runs the carrier toll-free and advanced services networks around the world

    Patented contact routing technology with integration to major carrier networks for Pre-Routing and multi-vendor ACD/IVRs for Post-Routing as a complete Intelligent Contact Management solution
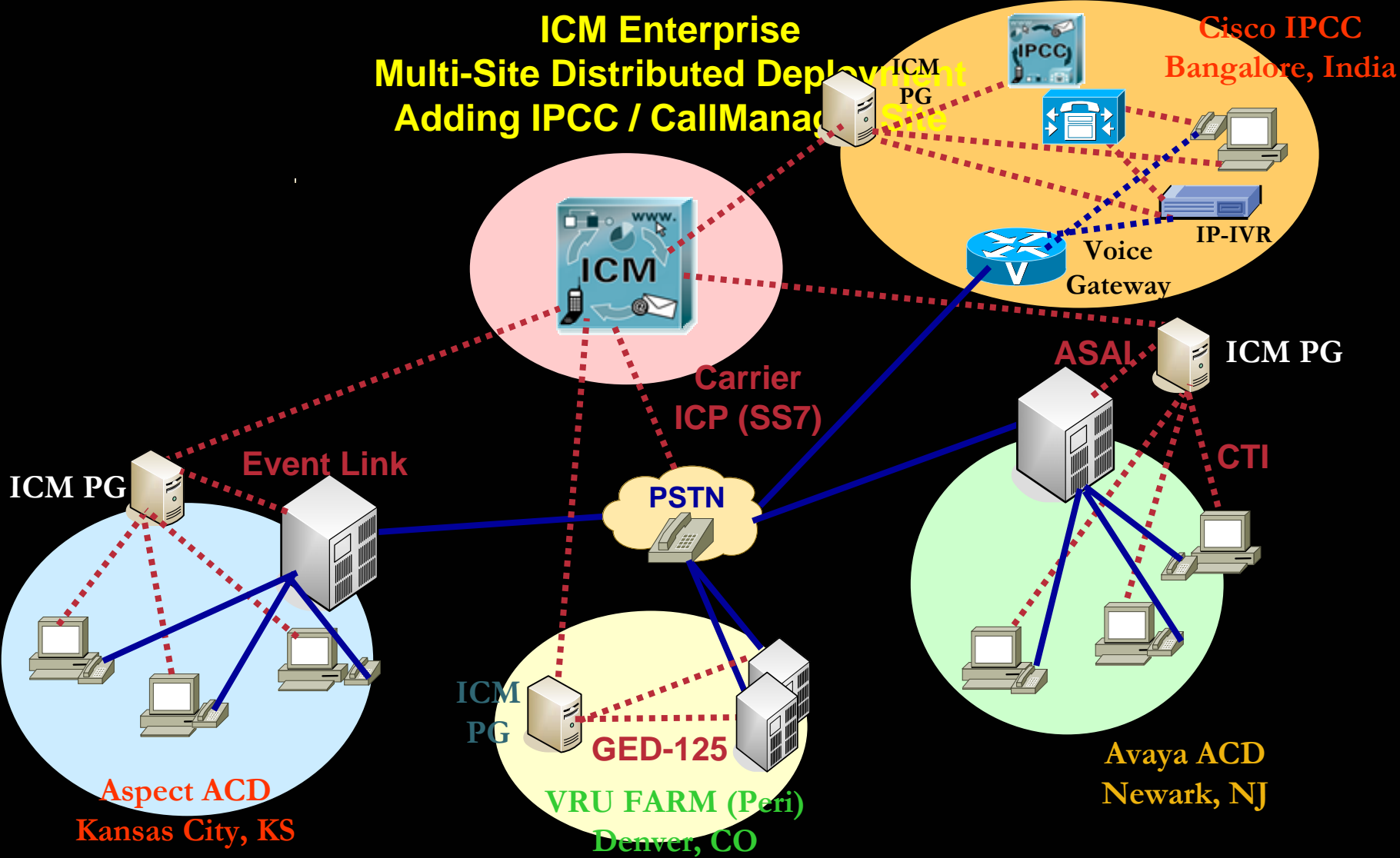
Cisco Unified Contact Center Solutions: ICM Enterprise

**ICM Enterprise
Multi-Site Distributed Deployment
Pre-Routing with Carrier ICP Service**

ICM

Carrier
ICP (SS7)

ASAI ICM PG

Event Link

ICM PG

CTI

PSTN

ICM
PG

GED-125

Avaya ACD
Newark, NJ

Aspect ACD
Kansas City, KS

VRU FARM (Peri)
Denver, CO

Cisco Unified Contact Center Solutions: ICM Enterprise

ICM Enterprise
Multi-Site Distributed Deployment
Adding IPCC / CallManager Site

ICM PG

Cisco IPCC Bangalore, India

IP-IVR

Voice Gateway

Carrier ICP (SS7)

ASAI — ICM PG

CTI

Event Link

ICM PG

PSTN

ICM PG

GED-125

VRU FARM (Peri) Denver, CO

Aspect ACD Kansas City, KS

Avaya ACD Newark, NJ

Self Service Platforms

Cisco Unified Contact Center Solutions: Self-Service Platforms

	IP-IVR	Customer Voice Portal
Supported Deployment Models/ Call Control	**Single Site "Behind CallManager" Uses CallManager JTAPI Call Control**	**Single Site Multi-Site Distributed "In Front of IP/TDM" Uses H.323 Dial Plan**
Supported Ports/ "Sessions"	**Up to 300 Ports/ Sessions**	**IOS-Gateway VXML Voice Browser Sessions Thousands of Sessions**
ASR/TTS Options	**MRCP Interface Nuance/IBM WS/Etc.**	**MRCP Interface Nuance/IBM WS/Etc.**
Developer Options	**CRS Editor / Ext VXML**	**ICM Script Editor / CVP Studio (VXML)**

Cisco Unified Contact Center Solutions: Self-Service Platforms

IP-IVR Centralized Deployment

PSTN

Cisco Voice Gateway

Dallas, TX

Internet

IP-IVR

RTP

H.323 MGCP SIP

JTAPI

MRCP Speech Server

Cisco CallManager Bangalore, India

Customer Voice Portal Multi-Site Distributed Deployment

PSTN

Atlanta, GA

Cisco Voice Gateways

Dallas, TX

Reno, NV

Internet

VXML

CVP Call Control

VXML

GED-125

MRCP Speech Server

Web Services

CVP Web Server

Bangalore, India

CRM/Customer Databases

ICM
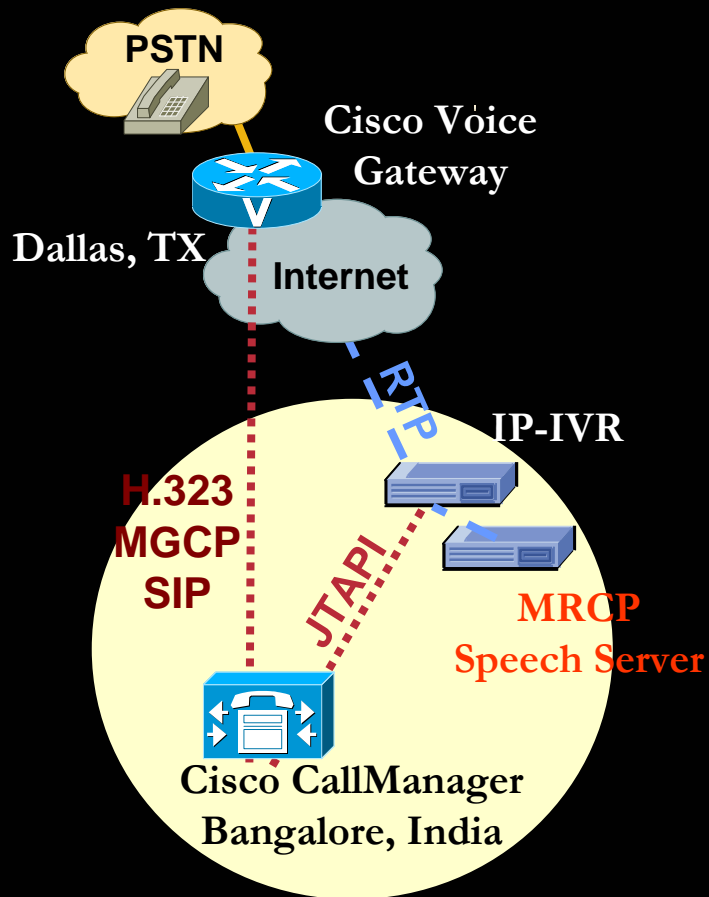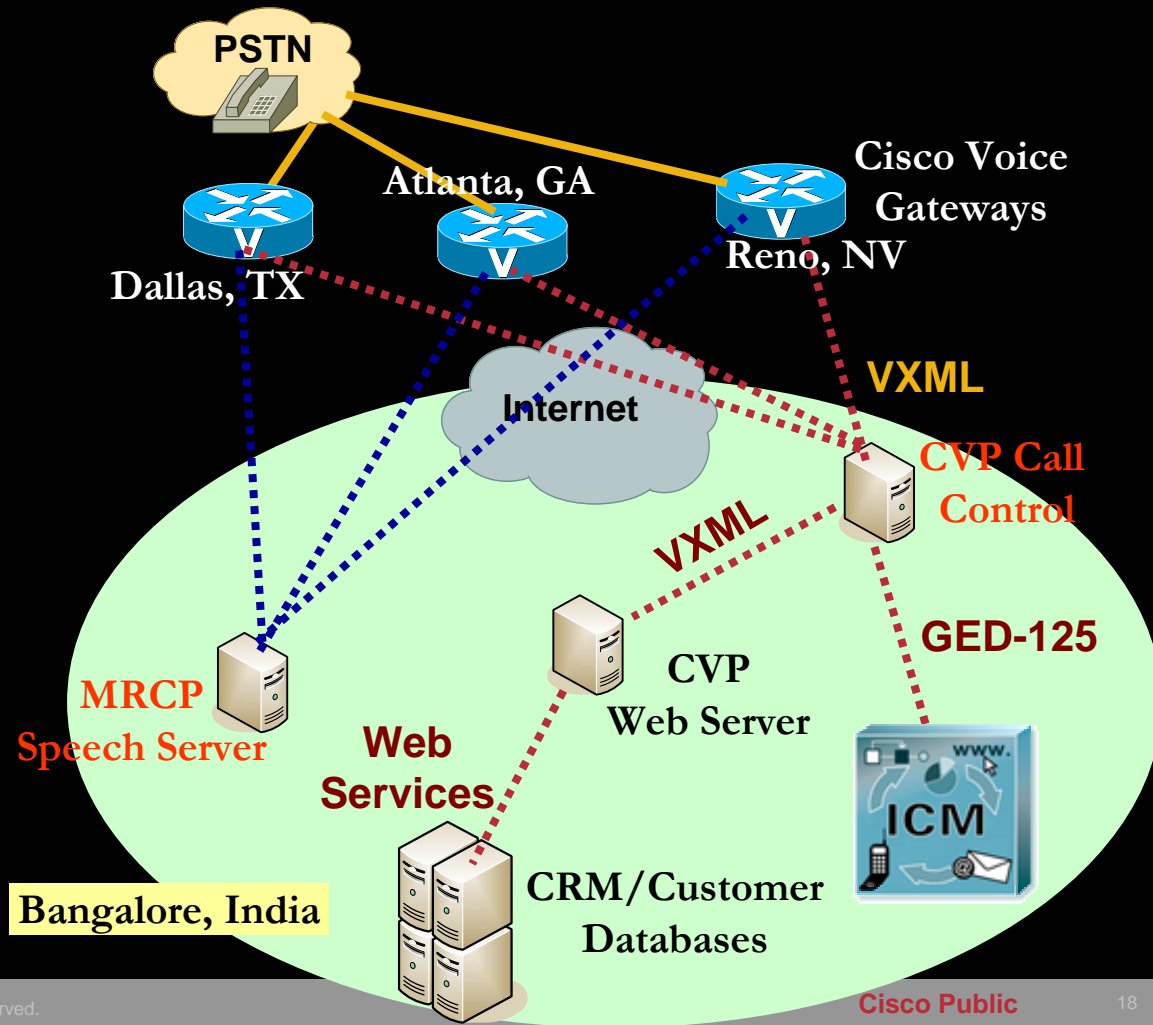
Why CVP?

The IVR Problem

- **Bound by legacy PBX/ACD, the TDM IVR is limited by proprietary technology**

    TDM IVR tends to be "site-dependent" using "IVR farms"

    Little or no "edge" design capability

    No centralized call control

- **TDM IVR relies on the voice carrier's ability to "take back" a call and terminate it at another site**

    Expensive per - call charges apply

    TDM IVR loses call control to PBX/ACD

    Call may lose continuity for call reporting

- **TDM IVR**

    Limited scalability

    Limited or no support for TDM/IP network convergence

How does CVP help?

The CVP Solution

- **Designed around open architectures (Web-based, VXML) and converged IP infrastructure**

- **Allows IP switching across the Enterprise - move calls using *your* IP network, toll bypass avoids expensive voice carrier charges**

- **CVP provides centralized call control, reporting**

- **Allows VXML integration as well as MRCP for ASR/TTS**

- **Scalable architecture grows to meet business needs**

CVP Basic Features

IP-based Self Service

- **Self Service IVR in the "Cloud"**
- **VoiceXML Based**
- **J2EE based, promotes Re-use.**

IP-based Network Switching

IP-based "Take Back and Transfer"

- **Transfer**
- **IVR Treatment**

IP-based Queuing

- **Queue and provide MOH callers while waiting for agent**

CVP

Cisco Public

CVP Basic Features

IP-based Self Service

- **CVP provides Centralized or Branch IVR services in the IP network cloud**

- **CVP front-ends calls near the network edge, near the caller**

- **IVR audio is close to caller, avoids using IP network bandwidth**


PSTN

CVP

ICM Enterprise Edition

VoIP WAN

CCMs (or IPCCs)

ACD
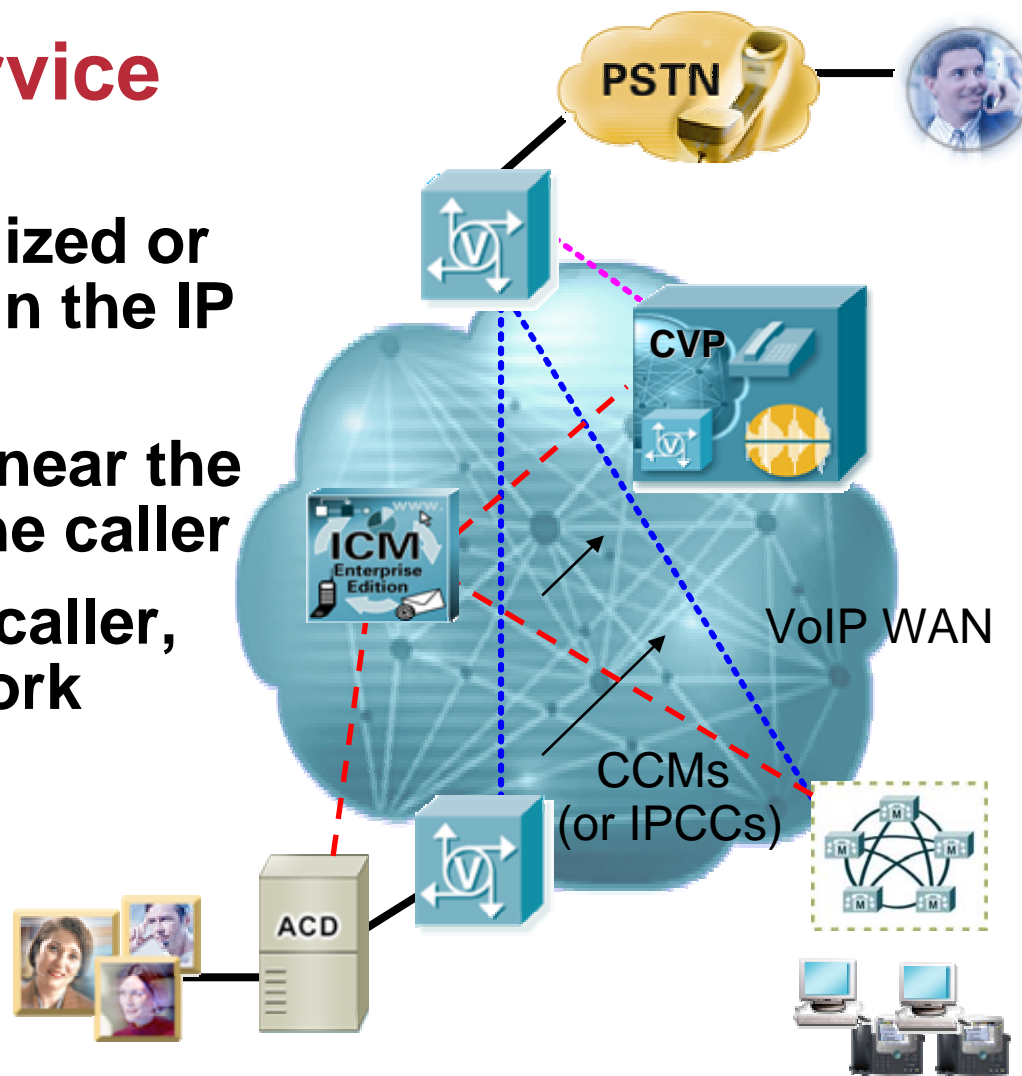
CVP Basic Features

IP Network Switching

- **Provides IVR treatment**
- **Transfers call to local or remote agent over IP network**
- **Agent switch can be IPCC or legacy TDM**
- **CVP can move call from one site to another**
- **CVP maintains call control**

PSTN

CVP

ICM Enterprise Edition

VoIP WAN

CCMs (or IPCCs)

ACD

Multiple Sites
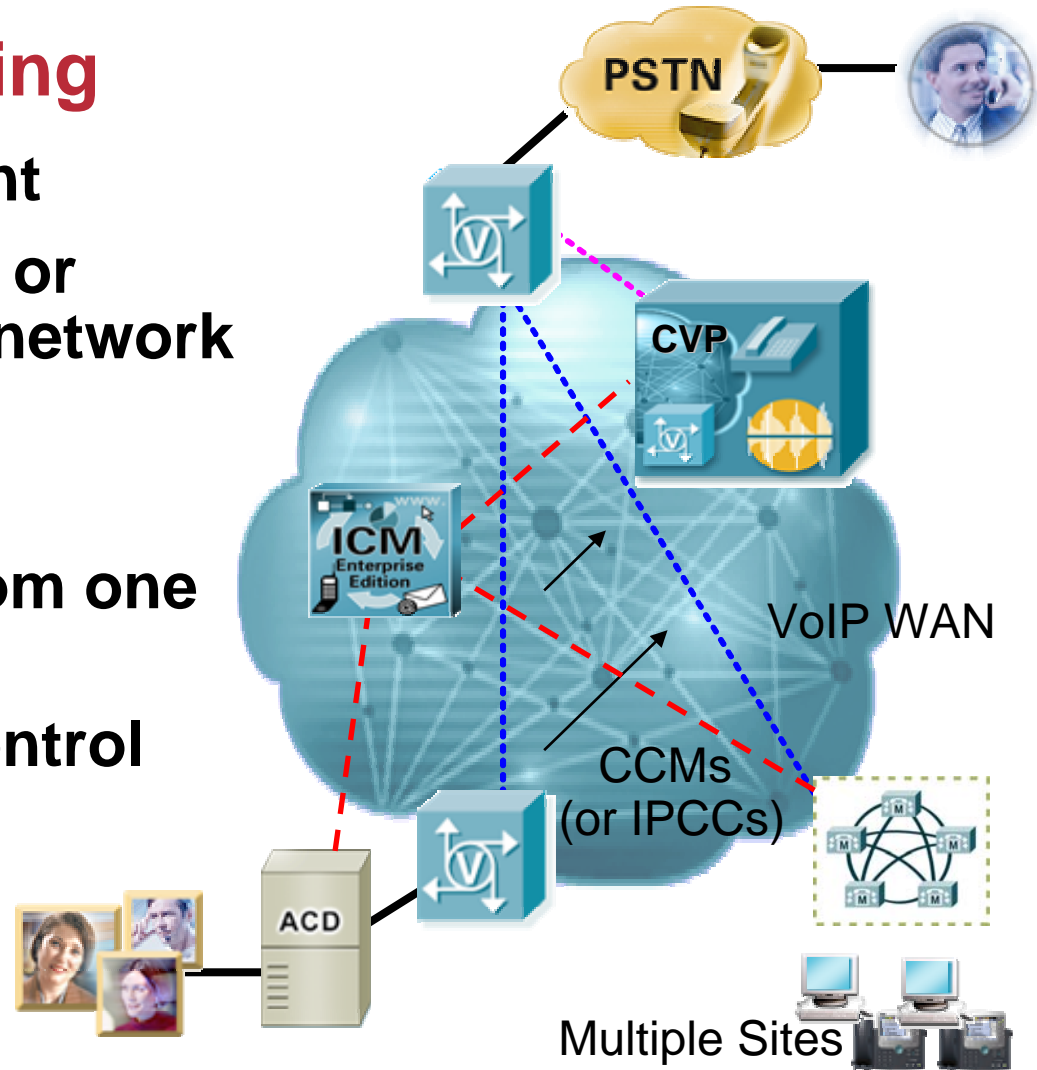
CVP Basic Features

IP Network Take Back

- **Provides "carrier-style" Take Back and Transfer**

- **Uses customer's IP network**

- **Avoids carrier charges for transfer services**

PSTN

CVP

ICM
Enterprise
Edition

VoIP WAN

CCMs
(or IPCCs)

ACD
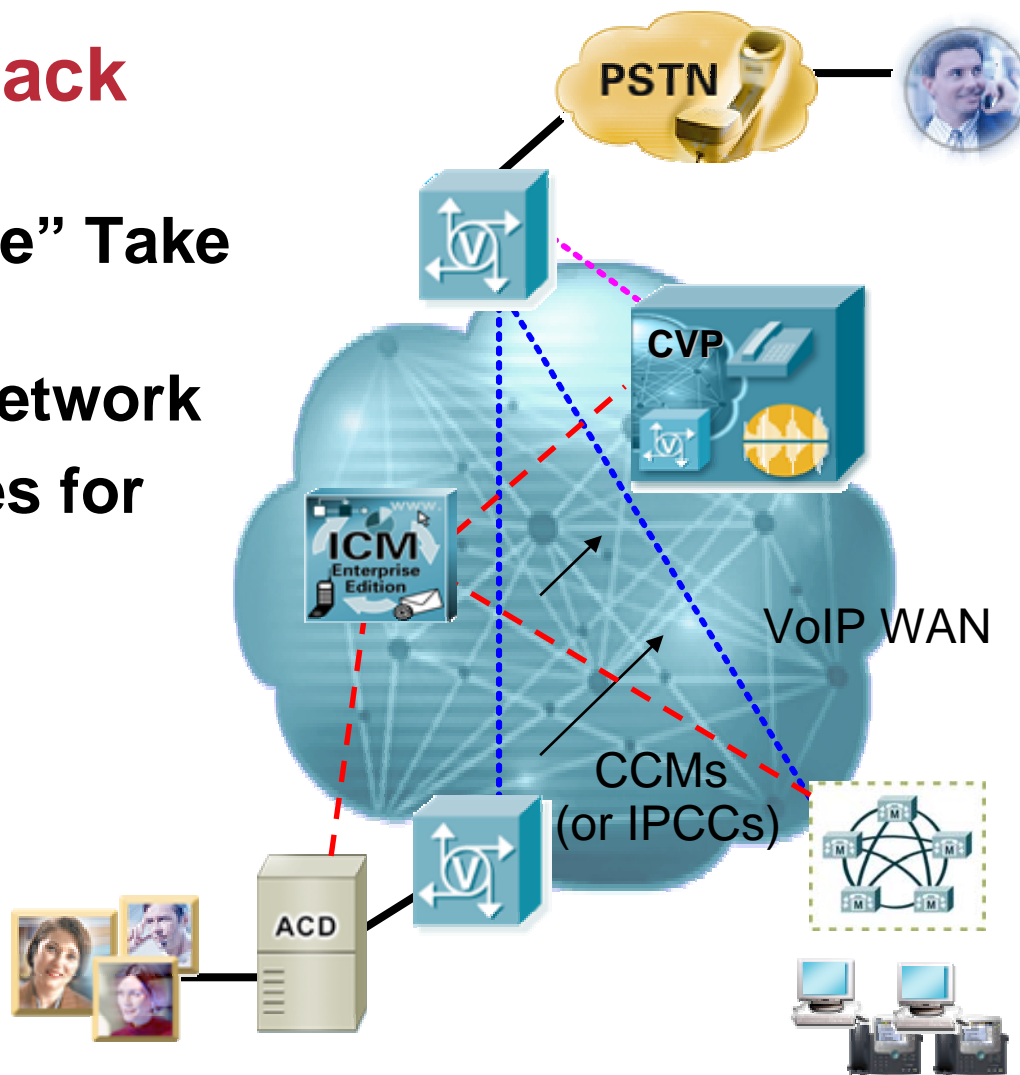
CVP Basic Features

IP Call Queuing

- **CVP front-ends calls and provides Queue treatment near the network edge, near the caller**

- **IVR audio such as MOH is close to caller, avoids using IP network bandwidth**

PSTN

CVP

ICM Enterprise Edition

VoIP WAN

CCMs (or IPCCs)

ACD
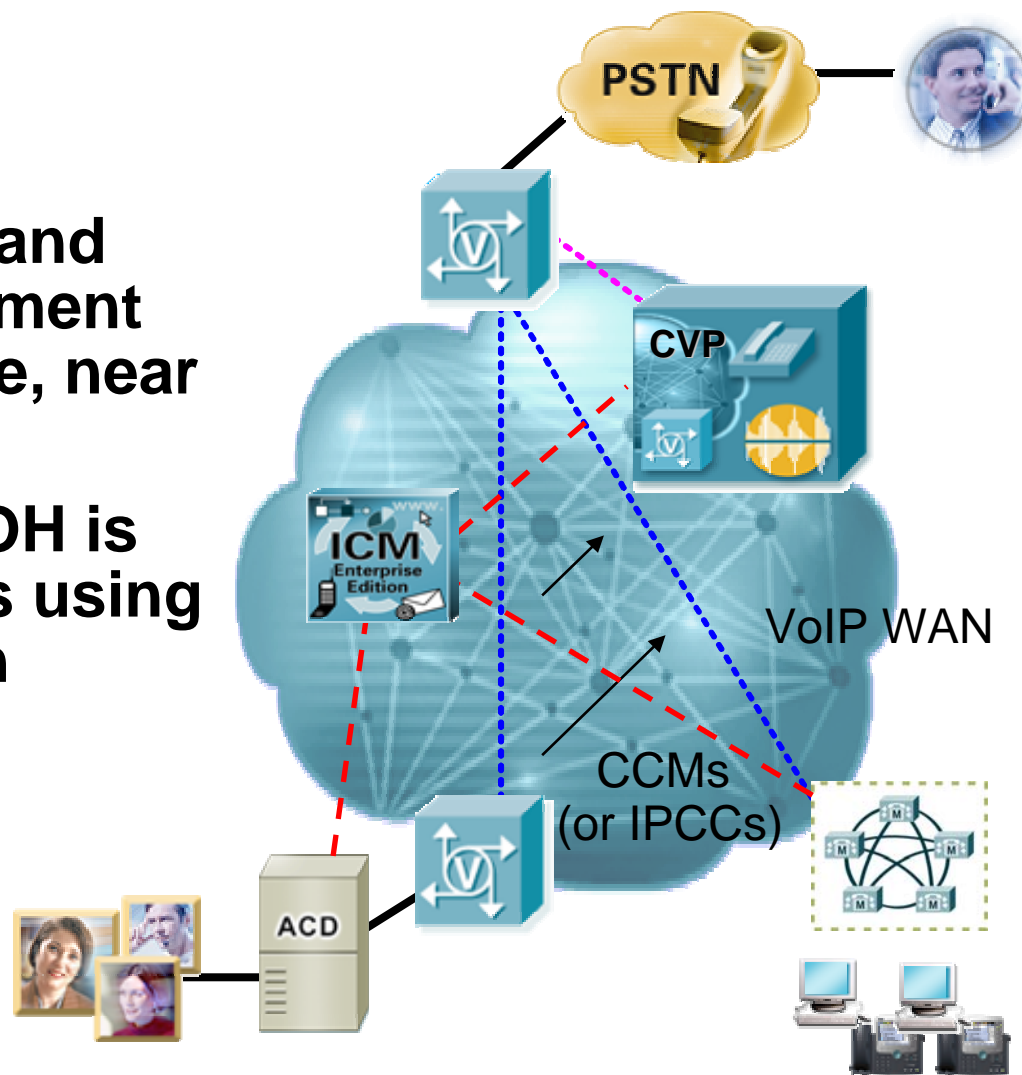
CVP Key Features

- **Supports both IP AND TDM networks**

- **Ease of Scalability**

- **H.323v2 interface to Cisco IOS Voice Gateways and Cisco CallManager**

- **Web-based prompt/collect, queuing at the network edge, call control**

- **VXML 2.0 interface to IOS Voice Gateway**

- **Fault tolerance and load balancing (content switching)**
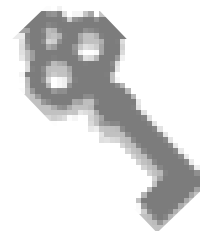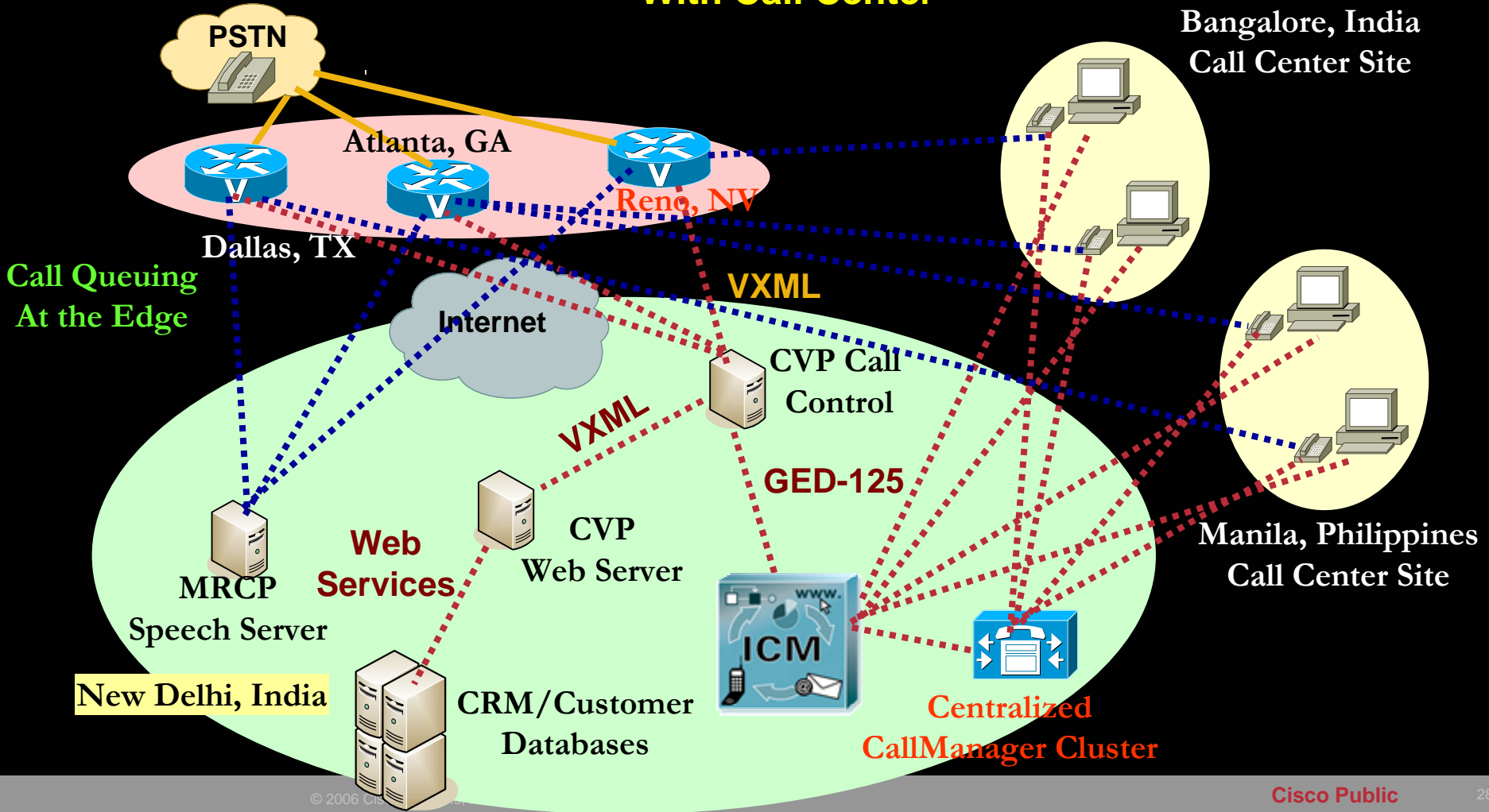
CVP Key Features

TDM/IP Hybrid Integration

- **CVP supports customer need to simultaneously support legacy TDM ACD and Cisco IPCC**

- **CVP is ideally suited to serve as a "queue point" for any ACD supported by ICM**

- **CVP facilitates phased migration approaches from legacy TDM environments to IP Voice**

PSTN

CVP VoiceXML

CVP Call Ctrl

ICM Enterprise Edition

VoIP WAN

CCMs (or IPCCs)

ACD
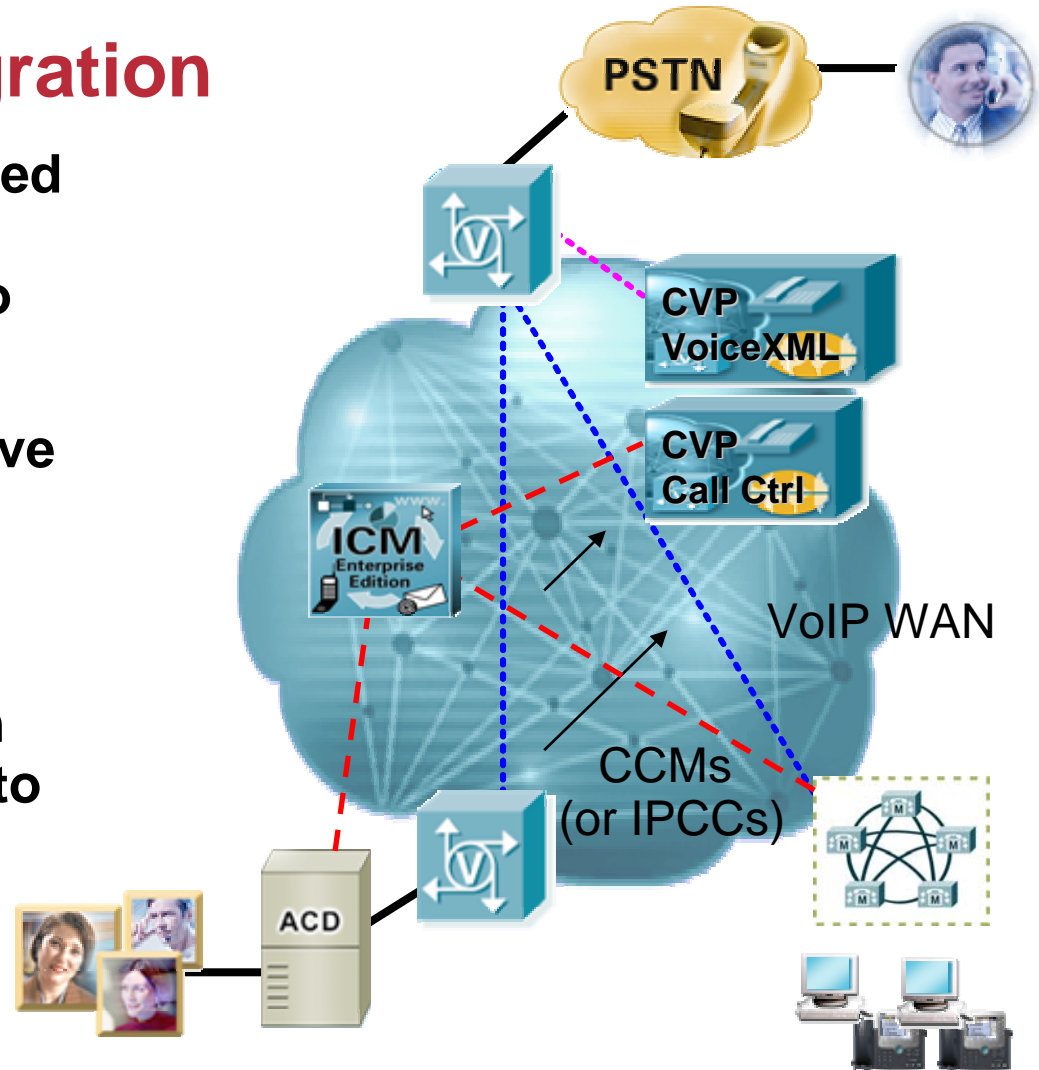
Cisco Unified Contact Center Solutions: Self-Service Platforms

Customer Voice Portal
Multi-Site Distributed Deployment
With Call Center

Bangalore, India
Call Center Site

PSTN

Atlanta, GA

Reno, NV

Dallas, TX

Call Queuing
At the Edge

VXML

Internet

CVP Call
Control

VXML

GED-125

Web
Services

CVP
Web Server

MRCP
Speech Server

Manila, Philippines
Call Center Site

New Delhi, India

CRM/Customer
Databases

ICM

Centralized
CallManager Cluster

Cisco Unified Contact Center Enterprise Roadmap

- **Remote Mobile Agent**

- **Central Provisioning & Partitioning**

- **SIP**

- **Cisco Unified Customer Interaction Analyzer**
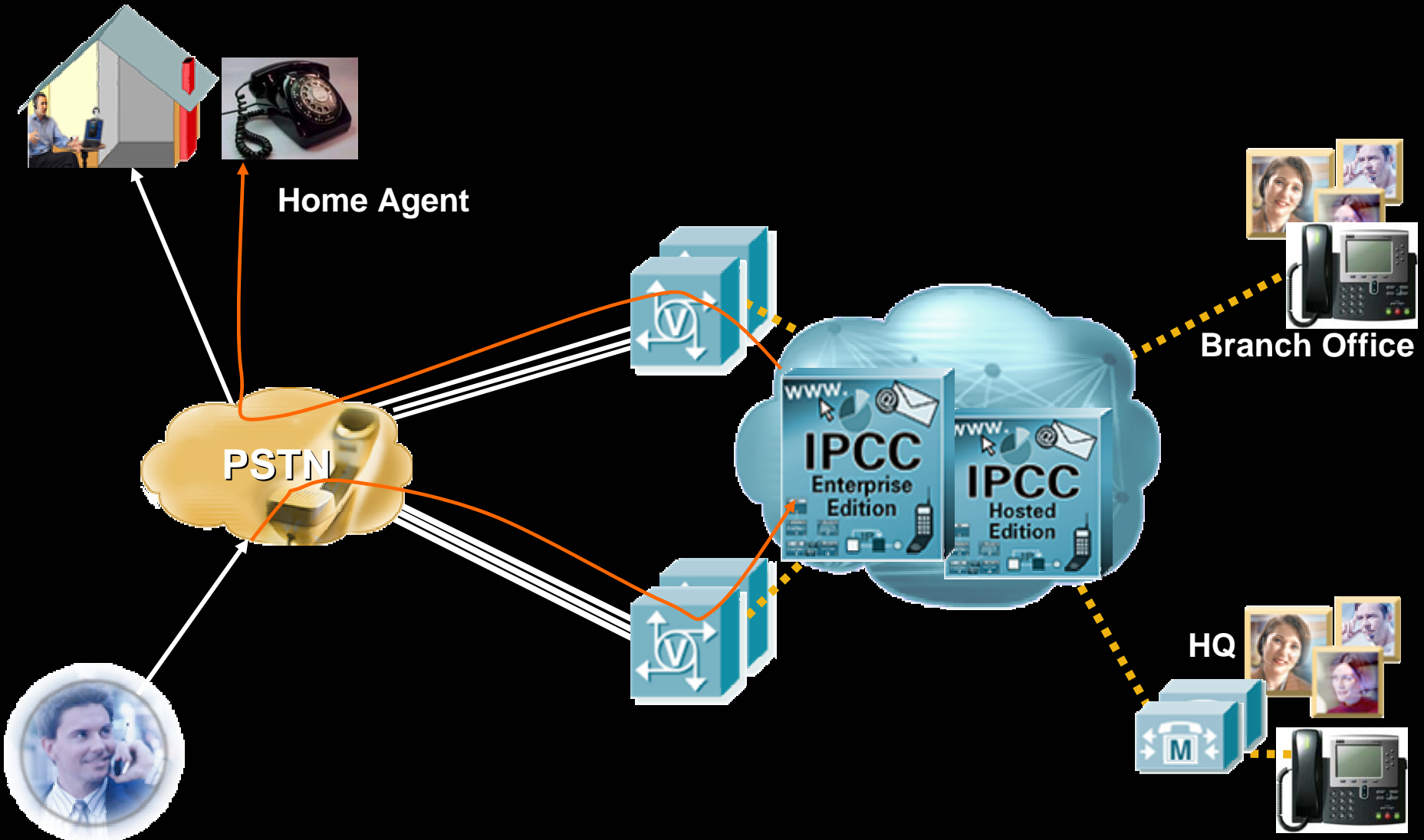
- **Cisco Unified Video Contact Center**

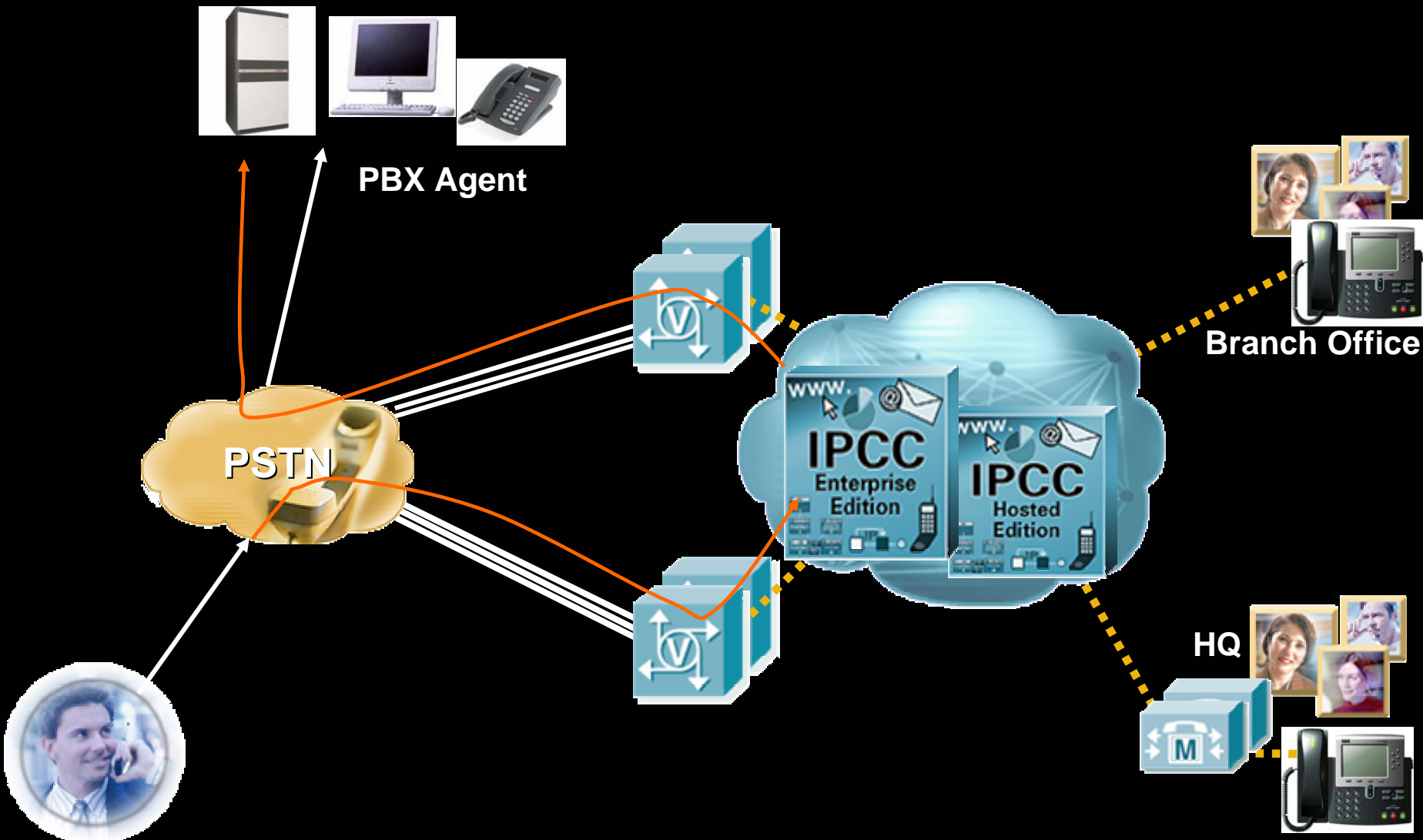# Mobile Agent

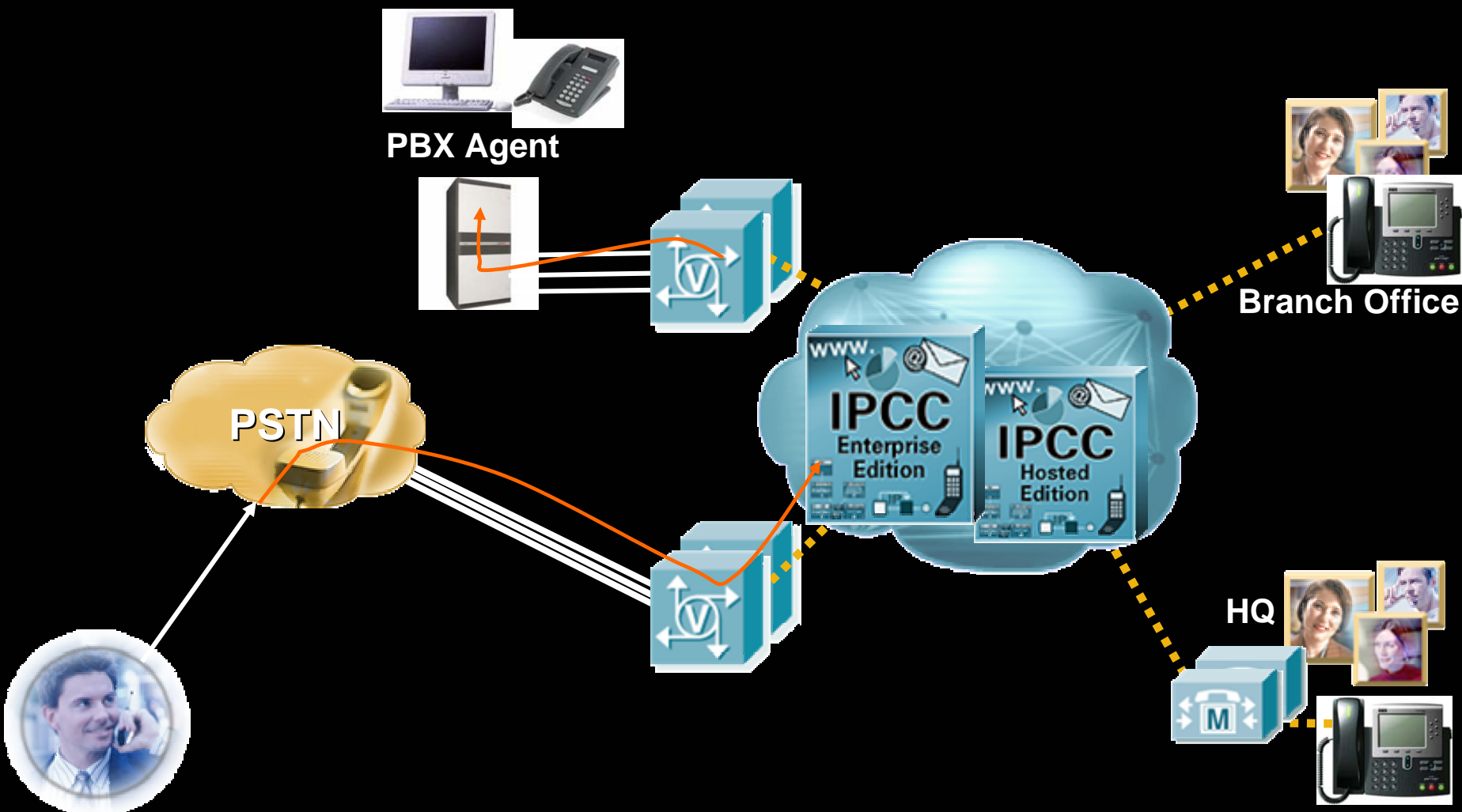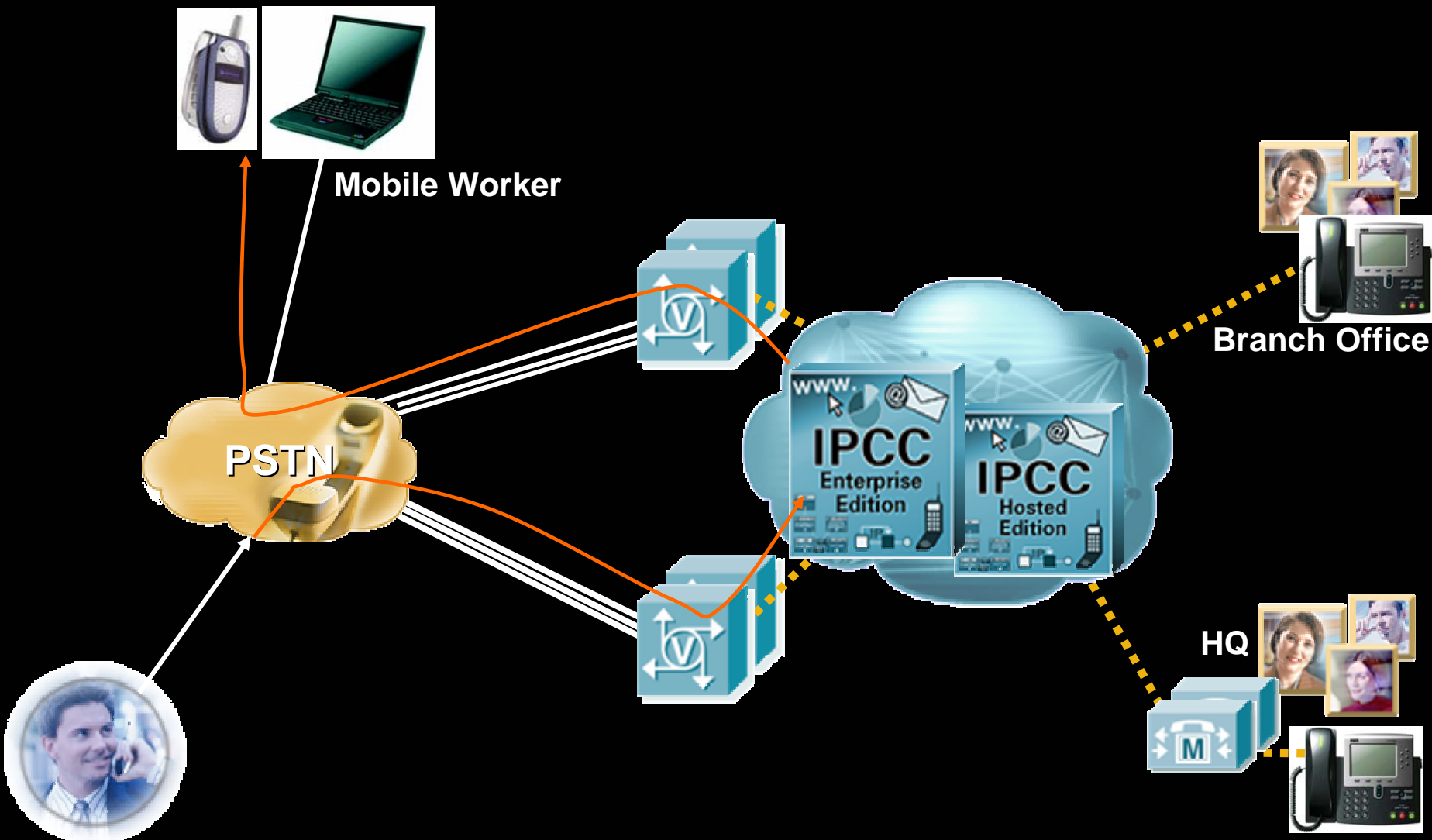**Any networked connected computer**

Any Phone Number
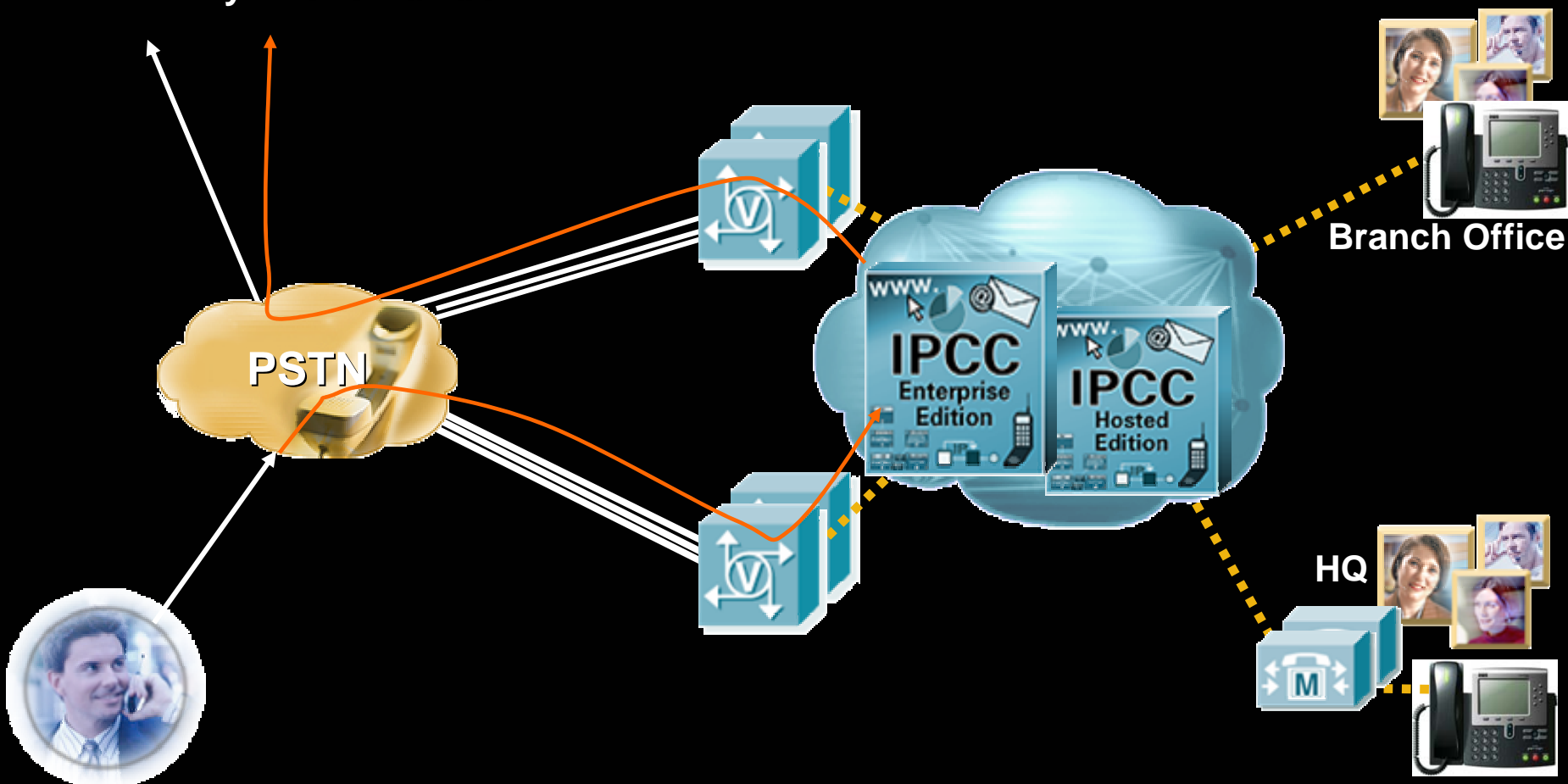
PSTN

Branch Office

HQ

Work At Home

Home Agent

PSTN

IPCC Enterprise Edition

IPCC Hosted Edition

Branch Office

HQ

Remote PBX Agent

PBX Agent

PSTN

IPCC Enterprise Edition

IPCC Hosted Edition

Branch Office

HQ

Central PBX Agent

PBX Agent

PSTN

IPCC Enterprise Edition

IPCC Hosted Edition

Branch Office

HQ

Mobile Worker

Mobile Worker

PSTN

IPCC Enterprise Edition

IPCC Hosted Edition

Branch Office

HQ

Cisco Unified Video Contact Center

Mobile subscriber

3G Gateway

CVP

IPCC Enterprise Edition

Video-enabled IPCC Agent
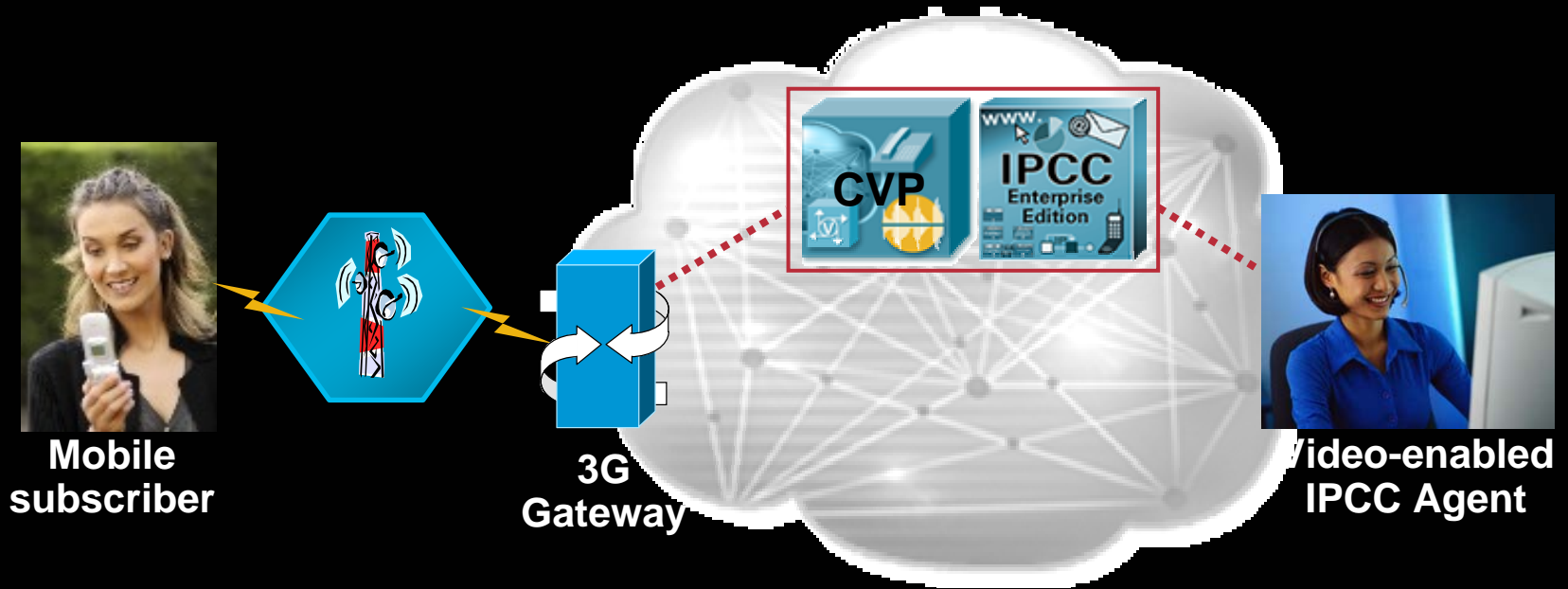
1. Video-equipped mobile subscriber places video call
2. Can navigate a menu to make self service or routing selections
3. Receives streamed video while waiting for an agent
4. Video call directed to video-enabled agent under IPCC control
5. Agent can direct additional video streams to the caller

Summary

Cisco Unified Contact Center Solutions: Summary

- **Cisco has a complete set of fully integrated contact center applications—starting with TDM-based contact management to sophisticated multi-channel IP ACD offerings and advanced speech self-service**

- **Cisco's products are designed to easily integrate new capabilities, flexibility, business agility and future technologies**

- **Cisco enables customers to invest in the part of the network they plan to keep, not the part they plan to phase out – they can migrate from TDM to IP at their own pace, without having to fork-lift their applications, systems or agents**

Q and A

Cisco Public 39