Cisco.com

Cisco Introduces Broad Support for SIP across Packet Voice Products

External Presentation

Endpoints with voice driving converged IP infrastructure

PDA

IP Phones

PC to Phone

Instant Messenger

Voice Portals

Video Telephony

Unified Messaging

Voice-enabled Websites

Challenges and Opportunities In Changing Times…

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Competition and plunging transport costs have shredded long-distance prices …..
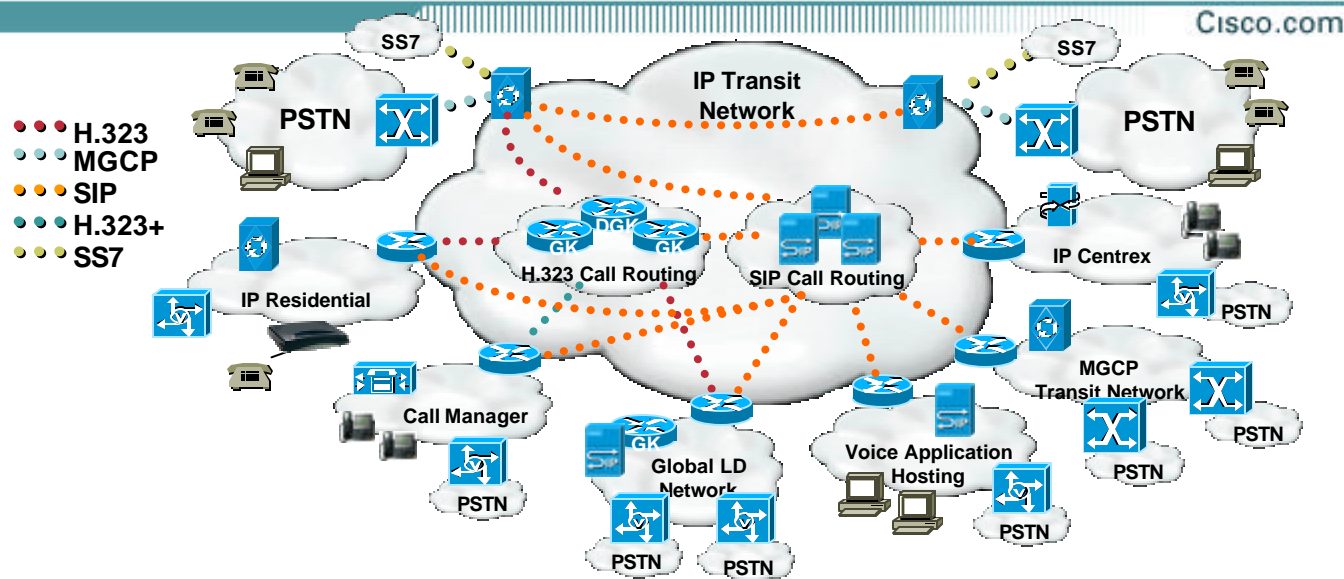
….. new voice technologies and services, sparked by the ever-increasing ubiquity and reliability of IP networks, are about to catch fire.

Forrester research, March 2001

"

Build the Internet
Network of Networks Reference Architecture

- **Service providers need to interconnect with many networks**

  Specifically, networks using a variety of telephony call control protocols

- **Service providers will offer both transport and billable services**

- **Cisco is driving the intelligence into its network elements to provide the "glue" that will bind the networks together**

The Benefits of SIP

Session Initiation Protocol promises to speed the delivery of new services and applications

Feature	Benefit
Lightweight, ASCII-based protocol similar to HTTP	Simplifies development of applications
Reuses other IETF protocols, such as SDP, DNS, etc.	Can be tightly integrated with web-based services
Application/media agnostic	Can be used for any real-time application, including voice, video, messaging, etc.
Increasing market adoption	Availability of SIP-based products growing

Cisco and SIP

- **Cisco Service Provider Products Supporting SIP**

   IOS Gateways: 1751, 7200, 2600, 36x0, AS5300, AS5350, AS5400 Series, AS5850

   Call Agents/Softswitches: BTS 10200, PGW2200

   Endpoints: ATA 186, 7940, 7960

   Infrastructure: Cisco SIP Proxy Server, PIX Firewall, IOS NAT

- **Cisco Driven Solutions are being deployed today**

   SIP Global Long Distance deployed by several carriers including some with integrated H.323 gateways.

   SIP IP Business Solutions starting to emerge

   SIP voice application solutions deployed by 5+ carriers (includes Windows Messenger PC-to-Phone support)

- **Cisco continues to be at the forefront of SIP development and adoption, including participating in SIP Bake-offs, IETF Standards, Industry Conferences, etc.**

Cisco SIP Product Portfolio

Cisco ATA 186

Cisco Voice Gateways

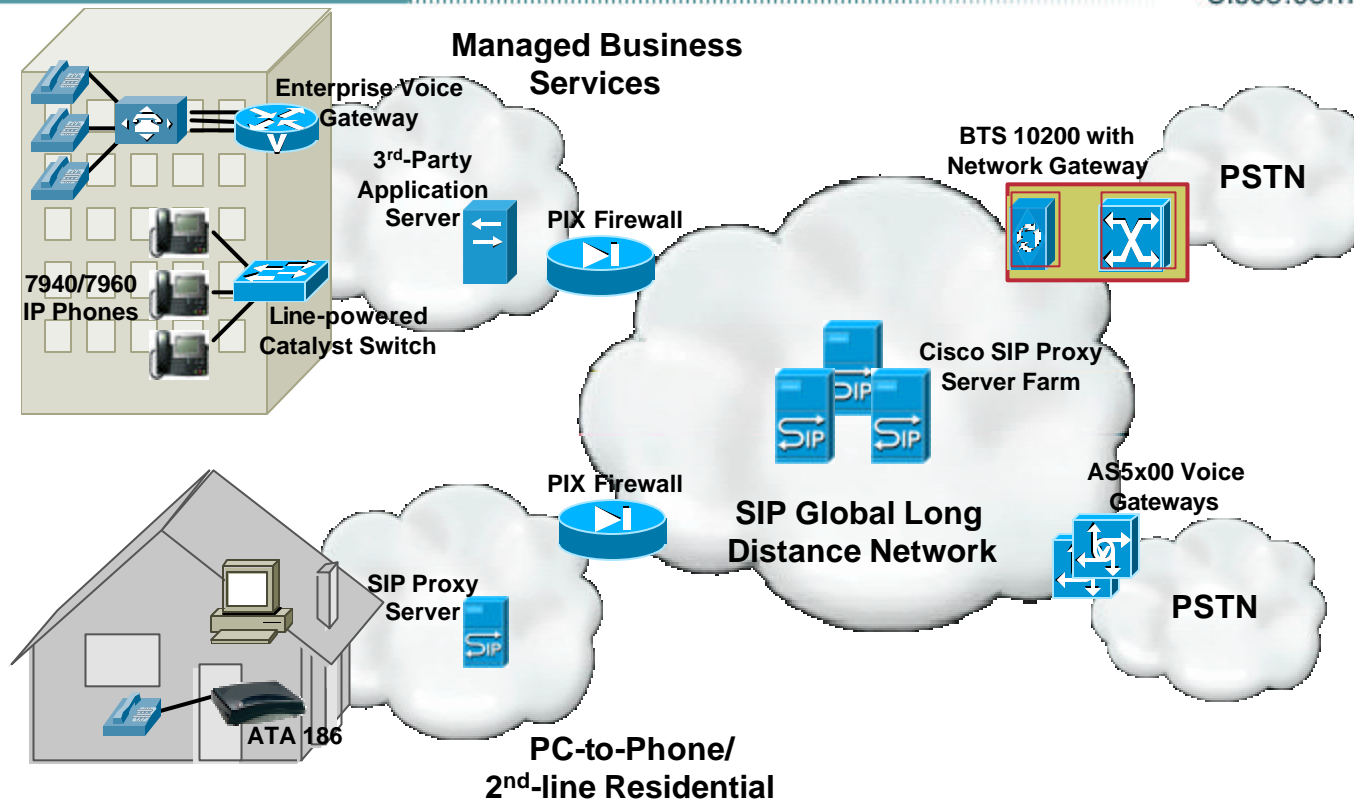**Cisco PIX Firewall**

Cisco 7940 & 7960 IP Phones

Cisco Softswitch and Signaling Gateways

Cisco SIP Proxy Server

Cisco SIP Products in a VoIP Network

Managed Business Services

Enterprise Voice Gateway

3rd-Party Application Server

PIX Firewall

BTS 10200 with Network Gateway

PSTN

7940/7960 IP Phones

Line-powered Catalyst Switch

Cisco SIP Proxy Server Farm

PIX Firewall

AS5x00 Voice Gateways

SIP Proxy Server

SIP Global Long Distance Network

PSTN

ATA 186

PC-to-Phone/ 2nd-line Residential

Cisco SIP Portfolio Benefits

Cisco SIP Products Enabling Service Deployment

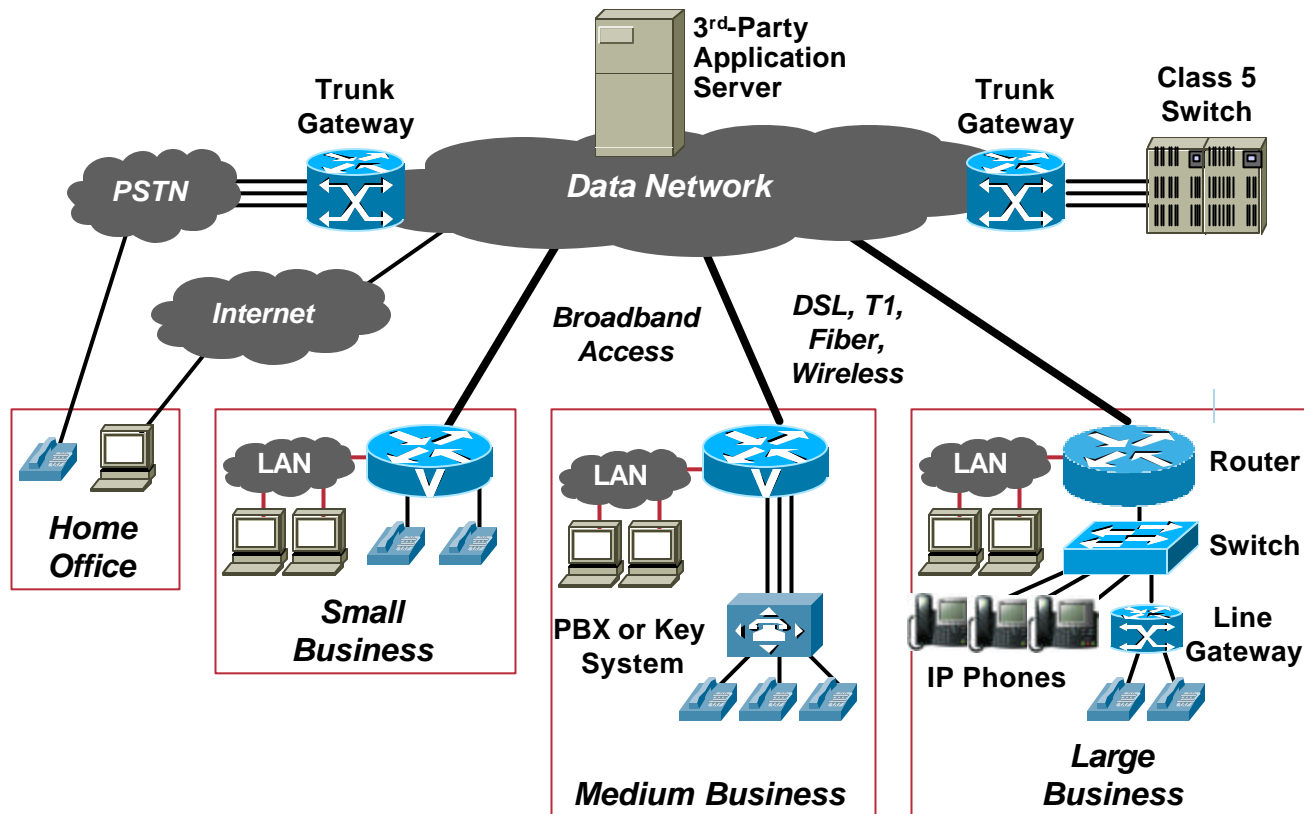| Feature	Benefit
Complete Product Portfolio	Reduces solution integration cycle and risks
Feature-Rich Voice Gateways	Faster application and service deployment
High-performance Call Control	Increases networking scaling and reliability
Multi-protocol Integration	Future-proof equipment purchases plus increased operational efficiencies

Customer Case Studies

WORLDCOM

- **Provides voice and data applications on one network, allowing business customers to transition to IP-based communications.**

- **Delivers call routing and feature control using Cisco IP phones, without PBX equipment**

- **Offers enhanced voice mail to receive recorded messages via the web or email**

- **Built network to interoperate with the PSTN and existing PBX to ensure smooth migration**

TalkingNets

- **Provides wholesale telephony solutions that retail service providers and value-added resellers offer to business customers**

- **Offers Virtual PBX and IP Dialtone services to small businesses**

- **Partnered with Cisco and Broadsoft to deploy end-to-end IP offering**

- **Built SIP-based applications that integrate call routing with personal calendar programs**

SIP Service Delivery Architecture:
Managed Business Services

3rd-Party Application Server

Trunk Gateway

Class 5 Switch

Trunk Gateway

PSTN

Data Network

Internet

Broadband Access

DSL, T1, Fiber, Wireless

LAN

LAN

LAN

Router

Switch

Home Office

Small Business

PBX or Key System

IP Phones

Line Gateway

Medium Business

Large Business

Customer Case Studies
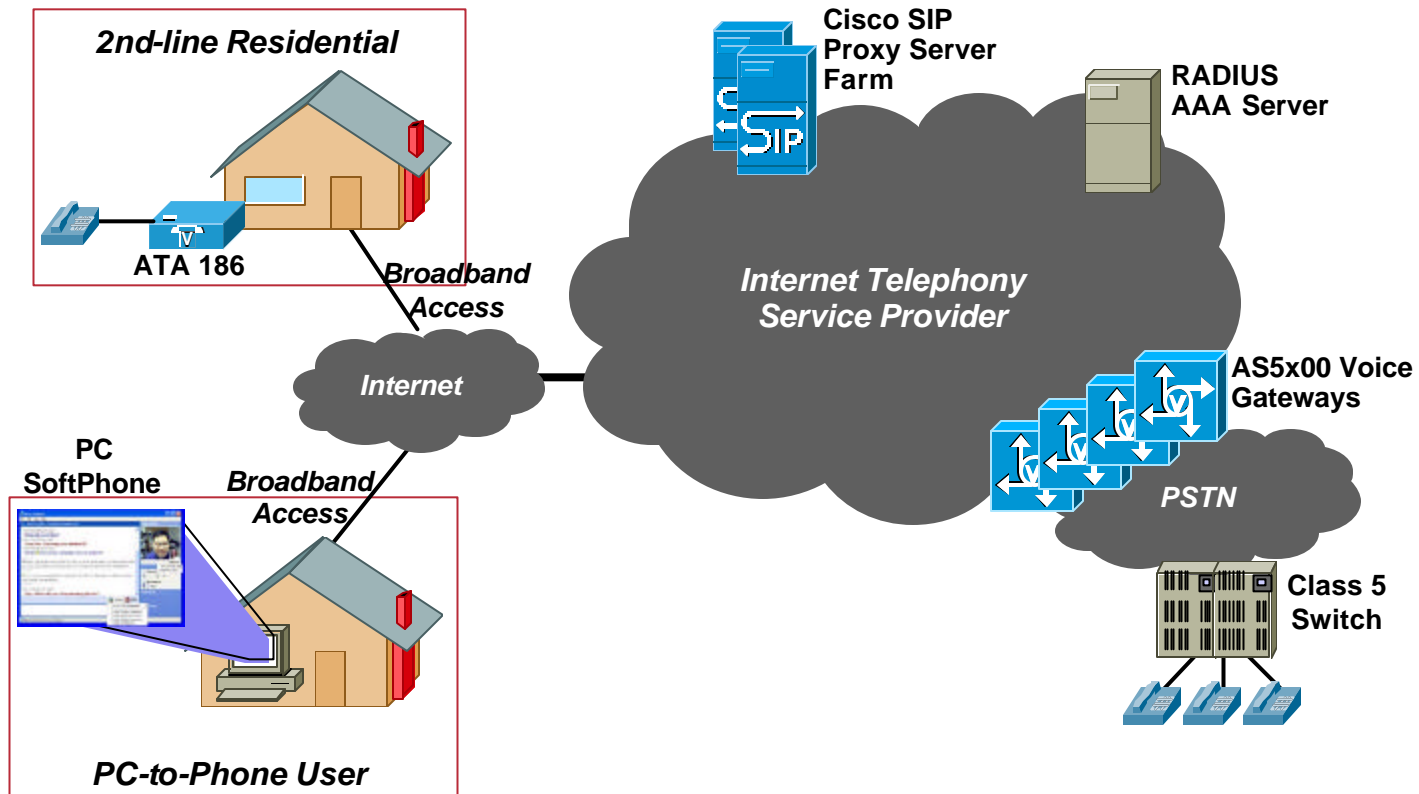
VONAGE
redefining communications™

- **Provides alternative line carrier-grade phone services to residential customers**

- **Offers enhanced services such as Blast Me, a service that simultaneously delivers calls to multiple phones, including Cisco IP Phones**

- **Allow customers to choose their area-code regardless of physical location**

- **Partnered with Cisco to deploy SIP-through-NAT solution for home users**

deltathree
The IP Communications Network

- **Provides Internet telephony services and infrastructure for service providers, small businesses and consumers worldwide**

- **Built and launched Microsoft Windows Messenger PC-to-phone service**

- **Also offers phone-to-phone and broadband phone solutions**

- **Achieved 30-40% reduction in network operational costs by deploying Cisco SIP infrastructure**

SIP Service Delivery Architecture:
PC-to-Phone/2nd-line Residential Services

2nd-line Residential

ATA 186

Broadband Access

Internet

Cisco SIP Proxy Server Farm

SIP

RADIUS AAA Server

Internet Telephony Service Provider

AS5x00 Voice Gateways

PSTN

Class 5 Switch

PC SoftPhone

Broadband Access

PC-to-Phone User

Cisco SIP Services Summary

- **Cisco is committed to supporting SIP in next-generation products and services**

- **Service providers can choose from a broad array of Cisco products supporting SIP, including voice gateways, proxy servers, firewalls, and IP endpoints**

- **Service providers are successfully deploying revenue-generating services today using Cisco SIP products**