



Applications and Services: Powering the Next-Generation Network

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Overview

- Last Keynote In 2001
 - What Was Market Thought to Be Then
 - What It Is Now
- Applications and Services
 - Next Generation Technologies
 - Application Examples

2001 International Softswitch Summit

- Discussed North American VoIP Experiences
 - Compared to Chinese Deployments
- Discussed Changing Market Emphasis
 - From: International and Long Distance
 - To: Enhanced Revenue Services
- Introduced the *ISC Reference Architecture*
 - Identified Components and Interfaces
 - Common Language for Elements

Where are We In 2004?

- International and Long Distance VoIP Success Story
- Market Differentiation Occurring
 - *Lowest Cost* or
 - *Best Service*
- Enhanced Services, to
 - Attract Subscribers
 - Retain Subscribers
 - Increase Revenues

Business Models

➤ Classical Service Provider

- Service Provider Provides Connectivity and Enhanced Services
- Beginning to Tie Enhanced Services to Connectivity Offer, e.g., Broadband Custom Ringback

➤ Hosted Service Provider

- Provide Enhanced Services through Existing Service Provider

How Has the Vendor Community Changed?

- Before 2001, Mostly Venture-Backed Start-ups to Service
 - Competitive Carriers
 - International Arbitrage Carriers
- Today, Consolidation
 - Many Companies Failed During Telecom Drought
 - Consolidation of VC Portfolio Companies
 - Vertical Integration by Large OEMs
 - Horizontal Integration by Enabling Technology Companies



Why Enhanced Services?

Business Models

- Proven from Legacy Networks
 - Gain Market Share and Revenues
 - Defend Market Share (Reduce Churn)
- Uniquely Enabled by VoIP
 - Enter New Markets

Gain Market Share/Revenues

- New Applications to Get New Subscribers
 - Messaging to Increase Revenue per Subscriber
 - Speech-Enabled Applications for Mobile Users
- Proven Model in Legacy Networks

Defend Market Share

- Raise Cost to Subscriber for Switching Away From Service Provider
- Provide “Sticky Applications”
 - Lots of Personal Information, Collected over Time
 - Tie Into Corporate Processes, such as Custom Call Center Applications
- Proven Model in Legacy Networks

Enter New Markets

- Broadband Service Provider Offering Voice *and Interactive Video* to Take from Wireline Voice Providers
- Wireless Service Provider Offering Hosted PBX Services to Enterprises to Capture Corporate Relationship
- Hosted Providers, such as BellNet Corporation, a Reality
- New Model, Uniquely Enabled by VoIP and SIP

Technology Approach for Enhanced Services

- 2001: Replicate TDM Components with Packet Interfaces
 - SSP → IP Routers
 - SCP → Application Server
 - IP → Packet-Based Service Node
- 2004: Enhance Web Components with Telephony
 - Web Application Server → Telephony Application Server
 - GUI Rendering (HTML) → TUI Rendering (VoiceXML)

How Were Services Being Deployed

- Before 2001, Only Option Was Packet-Based Service Node
 - MGCP Sole Interface
 - H.248 Not Finished Yet
 - SIP/XML Not Invented Yet
- Legacy Applications Debuted
 - Announcements, Prepaid, Voice Messaging

2004 Deployments

- Some MGCP – Notably Softswitch Announcements and Prepaid
- Acceleration of New Applications
 - Voice and Video Messaging
 - Web-Enabled Conferencing
- Legacy Applications Ported to SIP + XML
- New Applications Created With SIP + XML

The IPCC

- Supports Vendors By Fostering Networking to Create Distributed Applications
- Supports Carriers By Providing Up-to-Date Awareness of Offerings
- Supports Industry By Promoting Interoperability and Common Language for Packet-Based Communications
- Membership Includes Carriers, Vendors, and Government Agencies

Summary

- Market and Industry Has Developed Significantly Between 2001 and Today
- Enhanced Services Model for Revenue Growth and Profitability
- Web Model of Development Firmly Established and Generating New, Interesting Applications



Thank You

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