Deploying Unified Messaging with an Evolving Telephony Infrastructure

Mike Berlin VP Sales & Business Development - AVST
mberlin@avst.com
Agenda

- Current state of communications industry
- Analyst insight
- Unified Communications overview
- Unified Messaging overview
- Key considerations when moving forward
- Questions & answers
AVST Overview

- Long term global provider of premise-based enterprise communications solutions

- AVST’s software solution, CallXpress®, is a switch-independent enterprise communications platform
  - Interoperability facilitates migration from legacy TDM call processing and voice mail solutions to new IP-enabled unified communications solutions
  - Delivers scalability, feature depth and flexibility and administrative capabilities IT and Telecom teams are requesting
  - Best of breed applications including voice messaging, unified messaging, speech-enabled applications, notification, fax and call processing

- Over 40,000 systems sold globally past 25 years
Recent Major Customer Awards

- Becton Dickinson
- Capita Group PLC
- City of Charlotte/County of Mecklenburg
- City of Phoenix, AZ
- Clorox
- Comcast
- Drexel University
- Eastside Union High School District (CA)
- Ericsson Worldwide UM Deployment
  - 40,000 users in Sweden
- Guess Jeans
- IAC/Interactive
- Johns Hopkins Hospital
- King County (WA)
- Lawrence Livermore National Laboratories
- Lovelace Health System (NM)
- MassMutual Financial Group
  - 80+ Sites
- PepsiAmericas
- Proctor & Gamble
  - 60,000 users in 43 countries
- St. Barnabus Health Care System
- St. Joseph Health System
- Sandia National Laboratories
- Shell Oil Europe
- Smurfit-Stone Container
- State of Connecticut
- State of Louisiana
- State of New Mexico
- Texas A & M University
- US Department of the Interior
- US Department of Veterans Administration
- University of California – Los Angeles
- University of Colorado Health Science Ctr.
- University of Maryland – Baltimore
- University of Massachusetts
- University of Pittsburgh Medical Center
- University of Texas Health Science Center
Market Assessment

- It’s the Wild West!
  - Siemens announces Telecom Division is for sale
  - Nortel partners with Microsoft
  - Avaya goes private
  - Microsoft declares communications strategic
  - Mitel acquires Inter-Tel
  - Cisco acquires WebEx
  - NEC acquires Sphere

- It’s a great time to be a customer!
Enterprise Communications Themes

- IPT decisions in state of flux – Microsoft or Mobility?
- Centralization
- Disaster recovery/business continuity
- Compliance and confidentiality
- Alerting and notification
- Communications intelligence (smart presence)
- Collaboration
- Hosted/Hybrid
- Mobility
- Unified Messaging
- Unified Communications
Evolution of Enterprise Communications

First Generation

1985 – 2000

1st Generation

TDM PBX

1st Gen Solutions

• Voice Mail
• Touch-Tone Auto Attendant & Other Call Processing Apps

Next Generations

2007

2nd Generation

Hybrid PBX (TDM & IP)

2nd Gen Solutions

• UM Ready Voice Mail
• Unified Messaging
• Speech-Enabled Auto Attendant & Mobile Desktop/Personal Asst
• Desktop Collaboration Apps

2009

3rd Generation

IP-PBX

Mobile Device Integrations

3rd Gen Solutions

• Unified Communications
  • (Communications-Enabled Business Processes)

▲ - Oldest technology in the enterprise infrastructure!
Legacy Application Installed Base

Approximately what percentage of your voice end stations are supported by legacy TDM PBXs today?

Approximately what percentage of your end users are supported by legacy voice mail systems that will be end-of-life by 2010/2011?

Source: Business Communication Review NetSeminar, November 2007
Interoperability Opportunity
How many unique PBX systems does your enterprise support?

Source: Business Communication Review NetSeminar, August 2006
Unification

**Unification Opportunity**
What communications applications has your enterprise deployed?

- **Non-integrated voice & e-mail systems**: 83.9%
- **Instant messaging**: 52.3%
- **Unified messaging**: 29.0%
- **Presence**: 19.4%

*Source: Business Communication Review NetSemaer, August 2006*
Characteristics of Typical Enterprise Opportunity

- Disparate PBX/switching infrastructure
- Transitional IPT deployment strategy
- Extensive legacy call processing requirements
- Multiple, disparate and evolving email clients and stores
- UM message retention issues: storage, compliance and confidentiality
- Legacy VM retraining issues
- Centralized administration requirement
- A la carte feature delivery for different segments of workforce
- Virtual desktop to maximize mobile worker productivity
- IT flexibility + Economics
Gartner

Top CEO Priorities
- Improving business processes
- Enhancing workforce performance
- Growing customer base

IT will waste an estimated $100 billion over the next five years by overspending on network products and services

“... use that money (saved) on technologies like application acceleration, unified communications, mobility and voice over WLAN. "Don’t focus on a better network," said Gartner. "Focus on a better business."

Frost & Sullivan

Limited budgets and high prices of advanced technologies represent a major barrier to adopting new technologies

Interoperability with existing equipment is a significant factor

Open standards like SIP will contribute significantly to the commoditization of end points
What is Unified Communications (UC)?

- Unified Communications:
  - Communications integrated to optimize business processes
  - Offers the ability to improve how individuals, groups and companies interact and perform
  - Enables multiple communication channels to be coordinated – adds value to existing communications solutions
  - Offers a method to integrate communications functions with business applications – Communications-enabled business processes (CEBP)
  - Largest single value of UC is its ability to reduce “human latency” in business processes
State of the UC Market

Market and technologies maturing but adoption remains slow for multiple reasons:

- Value of new technologies, such as presence, not yet fully understood
- Best practices for UC not well defined or developed
- Products immature and lack full functionality
- Exiting infrastructure investments – evolution versus “rip and replace”
- Complexity and cost to deploy
- Soft ROI

Investments in UC capabilities are typically justified in personal, work group or enterprise-wide productivity improvements
Overview of UC Functionality
Six Core UC Product Areas
Four Emerging UC Product Areas
The Ultimate Objective of UC is Communications-Enabled Business Processes
Case Study: Communication-Enabled Business Process

PROBLEM:

- Notification for absentee ballot related issues
- Comply with strict Federal documentation requirements for elections
- Informing voters of current polling locations
- Difficult and expensive to staff on consistent basis

Customer: King County
County: Seattle
Founded: 1852
Time zone: Pacific: UTC-8/-7
Website: www.metrokc.gov
SOLUTION:

- Automated outbound notification for absentee ballot issues - delivers up to 400 notifications to voters per hour

- Created zip code specific polling location application
Communication-Enabled Business Process

**BENEFIT:**

- Automatically generated data to meet Federal election requirements
- Significantly more efficient and effective communications
- Saved hundreds of thousands of dollars by not having to add additional staff at election times

Customer: King County
County: Seattle
Founded: 1852
Time zone: Pacific: UTC-8/-7
Website: [www.metrokc.gov](http://www.metrokc.gov)
Case Study: Communication-Enabled Business Process

PROBLEM:

• Required a voice mail system to support migration to VoIP

• Training 3,000 employees on a new voice mail system

• Communicating shift and production status to workers in multiple languages
Communication-Enabled Business Process

**SOLUTION:**

- Supports 28 facilities and integrates into current IP infrastructure
- Emulates existing voice mail TUI
- Mobile workforce able to access all messages through their smartphones
- Call processing application communicates changing schedules to employees (overtime, night shift or day shift) in multiple languages

**Company:** Del Monte Foods
**Type:** Public (NYSE: DLM)
**Headquarters:** San Francisco, CA
**Industry:** Consumer/Non-Cyclical
**Products:**
- Del Monte®
- StarKist®
- S&W®
- Contadina®
- Meow Mix®
- Kibbles ‘n Bits®
- 9Lives®
- Milk-Bone®
- Snausages®

**Revenue:** $3.4 billion USD (2007)
**Website:** [www.delmonte.com](http://www.delmonte.com)
**BENEFIT:**

- Saved $150,000 per year on maintenance
- Minimal investment in retraining
- Increased productivity by automating notification of shift and production information in multiple languages
Unified Communications - Summary

- There is no single best approach
- No one vendor offers everything an enterprise needs for communications
- Because most enterprises have and will maintain communications solutions from multiple vendors, interoperability will remain a critical consideration
Unified Messaging Architectures

**Server-based UM**
Single store of all messages on an e-mail server.

**Client-based UM**
E-mail messages on one server and voice and fax messages on a separate server.

**Secure UM**
Secure access to UM separate clients to access messages.

**Simplified UM**
A copy of message sent to user’s e-mail account.
Architecture is the Key

- Server-based Unified Messaging
  - Voice & fax messages from server(s)
  - Messages moved to the user’s email Inbox
  - All user messages stored on a single server
    - Voice, fax and email messages stored in the user’s inbox on the email server
Server-based Pros and Cons

Pros

- Most feature rich
  - Leverages all email system features
    - Email web clients, ‘Pack and Go’, Folders, Rules
  - Easiest to use for the client
  - Full message push to mobile clients

Cons

- Some impact on email server & network
- Possible privacy/message retention issues
  - HIPAA, SOX, FERPA, etc.
Architecture is the Key

- **Client-based Unified Messaging**
  - Voice and fax from separate server(s)
  - Voice/fax messages remain on voice server
  - Messages integrated at email client and TUI
    - Email messages in one mailbox (Inbox)
    - Voice and fax messages in a separate mailbox (Inbox)
Client-based Pros and Cons

- **Pros**
  - Less impact on email server & network
  - Less concern on privacy/retention issues
    - HIPAA, SOX, FERPA, etc.

- **Cons**
  - Less feature rich
    - No email web client access to voice messages
    - No automatic ‘Pack and Go’
    - No full message push to mobile clients
Architecture is the Key

- **Secure Unified Messaging**
  - Messages remain on voice mail server
  - Access to messages from separate client
    - Not email client
  - Message access controlled by administrator
    - Can save local copy/Can’t save local copy
Secure Pros and Cons

Pros
- No ability to access file attachments
- No forward off-site
- Touch less install

Cons
- Not true unified messaging
  - Uses multiple clients (email and web)
Architecture is the Key

- **Simplified Unified Messaging**
  - Voice and fax from separate server(s)
  - Voice/fax messages remain on voice server
  - *A copy* of messages sent to user’s email account
    - Simple SMTP email
    - Unsynchronized multiple copies
Simplified Pros and Cons

- **Pros**
  - Less impact on email server & network
  - Easy support for foreign email systems

- **Cons**
  - Least feature rich
  - Two unsynchronized copies of the message
  - No access to email messages from the phone
Unified Messaging Should ...

- From the desktop:
  - Play voice messages from telephone
  - Play voice messages from PC speakers
  - Reply, forward, save, delete, etc.
  - Store messages in email folders
  - Enable call-back to message sender
  - Enable call-out to contacts

- From the web:
  - Play voice messages from telephone
  - Play voice messages from PC speakers
  - Maintain your user mailbox settings

- From the telephone:
  - Access all message types - voice, fax and email
  - Process messages - delete, save, forward, reply
  - Forward messages to fax machine – fax and email
  - Render attachments
Unified Messaging Considerations

- You become easier to do business with
  - Employees have more timely access to all message types
  - The information in voice and fax messages becomes more manageable similar to that in email messages

- Solution should support a mixture of user types per system
  - Any mix of types of unified messaging user
  - Voicemail users and unified messaging users
  - Unified messaging at desk, phone or both

- Solution should support any environment
  - Any email system
  - Any telephone system
  - Any network architecture
A Simple Set of Considerations for Your Next Generation Solution
Convergence is Upon Us!
Four Key Considerations for Your Next Generation Solution

- Mobility
- Interoperability
- Voice
- Data
- Extensibility
- Intelligence

Next Generation Enterprise Communications
Summary

- Make evolutionary steps that will move you towards a UC solution
- Keep the four key considerations in mind as you deploy new technology – Future proof!
- Remember that integration services will become a bigger part of the plan
- Cooperation of IT and Telecom teams with a joint vision is critical
- Keep in mind the critical compliance and confidentiality issues
- Different workforce segments need different solutions
- Consider all of the economics