Agenda

- NMS Overview
- Building Call Center Solutions – 1st in a series
- Market Drivers – Technology and Business
- Contact Center Developers Challenge
- EPOS overview
- IVR and Automating the Call Center
- Integrating the Call Center
- The Role of Speech
- Q&A
Building Call Center Solutions

- First of a series of web events focused on the contact center
- Web Seminars
  - February 4th – Speech Enabling Your Application
  - March 3rd – Migrating the Call Center to IP
- Watch for upcoming events!
NMS at a Glance

- Founded in 1983, publicly traded since 1994
- 2002 revenues of $102 Million
- 300+ employees
  - 120+ in product development
  - 100+ in field, support
- Products deployed in 90 countries
About NMS Communications

- Leading provider of systems, system building blocks, and services for next-generation communications solutions
  - With a focus on wireless, voice-driven applications, and packet infrastructure markets

- History of creating value for communications solution innovators — equipment suppliers, application developers and service providers based on
  - NMS-built technologies and services
  - Strategic relationships with technology partners
  - Industry-leading supply chain and integration partnerships
Basic Elements of a Connected Call Center

- PSTN
- Customer
- IVR Server
- Switch
- ACD
- CTI Server
- Agent 1
- Agent 2
- Agent n

Data
Voice
CTI Monitor/Control Link
Contact Center Business Challenges

- Improve customer service
- Increase productivity
- Maximize flexibility
- Reduce operational costs

→ All at the same time
Some Market Drivers

- Technology and business disruptions
- Spending shift towards technologies that improve existing investments
- Outbound calling remaining stable
- Conferencing technologies key for monitoring and logging
- Increasing importance of self-service technologies
Contact Centers: Big and Growing
10% annual agent growth expected in North America through 2006

Technological Disruptions
• Voice Over IP
• Speech-enabled self-service
• Multi-modal communications

Business Disruptions
• Emergence of hosted contact centers
• Shift to CRM vendors, away from PBX/ACD vendors

Changes in hosting environment and bundled IP voice services require next generation platforms.
Outbound Calling Remains Stable

- Outbound dialing accounts for about 20% of total call volumes for call centers
- Traditional telemarketing is under pressure from poor performance and increased regulations
- But other forms of outbound calling are on the increase
  - Debt collection
  - Proactive service calls
Conferencing and Monitoring
Technologies Important

- Beyond usual coaching and supervisor assistance
- Conferencing technologies key for monitoring and logging
  - Driven by requirements of improved customer service
  - Fraud management
  - Voice security and law enforcements
Contact Center Spending Shifts: Likelihood of implementation

Source: Datamonitor, 2003
Customer Interaction Today

- Contact channel options
  - Phone
  - Postal mail, fax
  - E-mail
  - Text Chat
  - Web Collaboration
  - VoIP
  - Handheld devices

From the call center… … to the contact center.
Next Generation Contact Center Challenges

- Seamlessly combines human and information resources
- Incorporates web-based customer service
- Multimedia contact management
- E-commerce ready
- Works on either circuit-switched or IP infrastructure
The Developer’s Challenge: Solution Requirements

- An application infrastructure that works across both VoIP and existing TDM network
- Seamless integration and consolidation of all customer touch points, including IVR, contact center, predictive dialing, and voice messaging
- Full-featured conferencing, echo cancellation, and “barge-in” for support of agent monitoring/training and transaction logging
The Developer’s Challenge: Solution Requirements

- Scalable application model, allowing applications to be built and easily support both small and large configurations without significant changes.
- Hardware and operating system independence, making applications more portable, work with resource technologies from a variety of vendors.
- Native support for automated speech recognition engines supplied by the recognized leaders in the ASR industry.
Work with an Experienced Partner -- NMS

- Comprehensive product framework for voice, data, and video services
- Deploy rich applications everywhere — any market, any network, any transport
- Open interfaces, industry standards, COTS, IT-certified
- Delivered through world-class partners and supply chain, backed by the best developer support
The Connected Call Center

Keith Womack
Product Manager
EPOS Corporation
About EPOS

- Headquartered in Auburn, Alabama
  - Locations in Georgia, California, Florida & Virginia
- Founded in 1982
- 90 employees
- Over 3,000 installations worldwide
- Focus markets:
  - Nine (9) states rely on EPOS at some point in their call centers
EPOS Products

- **FirstLine Encore™**
  - Speech-enabled IVR platform
  - Strong mainframe & database integration

- **ScriptExpress®**
  - Speech application development tool
  - Integrated application integration & debugger

- **Call Center Director™**
  - Bolt-on call center integration system
  - Provides call control and screen-pop to agents’ desktops
Why Automate Call Centers?

- Customer (92% of customer interactions by phone\(^1\))
  - Improved access to information
  - Reduced delays in retrieving information
  - Improved service

- Agent
  - Elimination of mundane tasks
  - More time to handle calls & meet objectives

- Company
  - Better service & access to consistent information
  - Manageable solution
  - Reduced turnover
  - Reduced costs (from $15 to $5.50 or less per call\(^2\))

1 – Gartner, 2 – Harris Interactive
The Role of IVR in the Connected Call Center

- **Collect information**
  - Reduces toll on agents by collecting mundane information

- **Call Routing**
  - IVR provides a method for determining needs of caller to more efficiently route the caller

- **Reduce Costs**
  - IVR is an efficient, cost-effective way to collect data

- **Fulfill applicable requests**
  - Some requests can be best handled by IVR
Levels of Call Center Automation

- Screen pop to agent
- Speech-enabled intelligent routing
- Intelligent call routing
- Menu-driven routing
- Simple queue-based routing
Integrating the Call Center
Telephony Integrations

- Call transfer to skills-based routing
- Switch integration
  - Call wait times
  - Queue management
  - Call control
- Integration Standards
  - CSTA (Computer-Supported Telephony Application)
  - TAPI (Telephony Application Programming Interface)
  - Vendor-specific protocols
    - Meridian Link, ASAI Link, etc.
Integrating the Call Center
Back-end System Integrations

- Retrieval of customer information
  - Within the IVR system
  - For presentment to the agent

- Skills-based routing
  - Based on caller input
  - Based on information-on-file

- Screen-pop to the Agent’s Desktop
Integrating the Call Center
Connecting the Agent

- Screen-pops benefit everyone
  - Agent – more efficient, better able to assist caller
  - Customer – no need to repeat information
  - Company – happier agents & customers, reduced call times, reduced wait times

- What can be popped?
  - Caller information (based on input or ANI)
  - Subject information (based on DNIS or place in IVR)
  - Any information provided by caller or that can be determined about the caller
The Role of Speech

- Natural Language Speech Recognition (NLSR) has changed the landscape of IVR deployments

- Speaker verification provides a very secure method of verifying a person’s identity
  - PINs can be lost or stolen

- Benefits
  - Higher quality image
  - Easier to navigate
  - Reduces call times
  - More accepted by users

- Remember… some things still work better with DTMF
  - PIN, ZIP Code, & some all numeric entries
  - DTMF is faster to process, can be more accurate
Why Partner With NMS?

- Producing telephony hardware was painful
  - Required us to project needs 12-18 months in the future
  - High inventory & personnel costs associated with inventory production & storage
  - Difficult to support international expansion
  - 2-3 developers devoted to hardware integration

- Provides framework for integrating speech recognition from multiple vendors

- Allowed us to focus on our targets
Please take a moment now to complete our short survey, while we start the Q & A
Thank You!
For more information......

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February 4, 2004 Web Seminar “Speech Enabling Your IVR Application” with Scansoft
- Register now at www.nmscommunications.com