Background

- "C203: Infrastructure for contact centers adapting to Voice Search"

- What is Voice Search???

- Some Observations / Questions
  - Is it the next generation of speech recognition?
  - Is IVR technology now an unavoidable part of Contact Center operations?
  - Is this the “Convergence” of speech recognition and analytics?
  - Through all of our adoption of “other” forms of communication in the last 2-3 decades; voice and contact centers remain critical to customer contact management.

- Assuming “yes” or “true” to all of the above…….., How do we get ready?
Some Basic Objectives Never Change…………..

- Is your network performance “tight” enough for high-demand applications?
- Can you Conference callers efficiently?
- Are your automated messaging systems up to par?
- Is your Analytics reporting what you need?
- Is your Call Center effectively staffed?

Ask Yourself,…………..
“How’s my current Contact Center working???”
Contact Center Infrastructure

- Historically “Self-Contained”
  - Direct Carrier Connectivity
  - On-Premise ACD Telephony
  - Connectivity to Host Applications
  - Local Call Routing and CTI interfaces
  - Local “Support” Systems (Recording, Reporting, Training, etc.)

- IVR “front-ends” - Internal or External
  - A wide range of process/cost Alternatives

- The “Mission” remains largely unchanged
  - Great Service for Callers and Supported Businesses

- “Voice Search” Opportunities:
  - Continued Evolution of IVR Front-End Automation, Limiting or Improving the Agent Portion of a Call
  - Application of Speech Analytics to Improve Caller Experience
“OLD” Approach to adding Voice Response Unit(s) to Contact Centers

- Carrier TDM Calls
- ACD
- VRU
  - Telephony
  - Application Services
  - Speech Services
  - Data Interfaces
- Call Routing
- CTI
- “Host” Systems
  - Apps
  - Data Services
  - Database

We’ll put it all in a PC…and we’ll call it a “VRU”
“New” Generation Architecture

Legend
- Voice – TDM
- Data Connection
- Voice & Data

Session Controller

Media Gateway

Carrier TDM Calls

“Peer” Networks

Internet

Carrier IP Calls

Contact Center(s)

ACD

Speech Recognition

“Host” Interfaces

Data Services

Outdial Applications

Audio Storage

Virtual ACD

Media Services

vXML Apps

Browser Services

Web Services

Cache Services

Speech Services

Speech Recognition

Internet “Hosts”

Customer Application “Hosts”

Database(s)

Voice - TDM

Data Connection

Voice & Data

Internet

PSTN

Intelligent Call Mgmt (ICR & CTI)
“Virtual” ACD Processing Model

- **Agent Data Interfaces Similar**
  - Log in to establish agent “presence”
  - Agent Profile(s), “Skills”, Workforce Management, Supervisor Interfaces
    - Multiple Distributed Services
  - Desktop is still the “Same” (application(s), “softphone” controls, etc.)
  - High Speed Internet Connectivity required

- **Telephony Connectivity Multifaceted**
  - Basic Requirement is for KNOWN Route to agent
  - PSTN numbers (DID) can work fine
  - Softphone Registration more complex but is evolving positively.
  - Quality Challenges with Softphones
IVR Design Practices

- Understanding the User Interface Focus
  - Automation Outcome
  - Agent Interface Outcome

- “Dialog” Design
  - “Specialty” Skill Set that’s Critical to “Do The Right Thing”
  - *Think Like The Caller*

- Establish Caller Relationship with IVR Interface
  - Voice Selection, Context Sensitive, Data-based Customization

- Successful IVR Design Produces Dramatic Differences in the Application of Advanced Speech Technology
  - “Natural Language”
  - “Real-time” Analytics
Key Research/Decision Areas

- If You are Running Contact Centers, You Need to Examine the Following:
  - Telephony Connectivity
    - Carrier Connectivity
    - Private Networking
    - IP Replacing Circuit-switched (**This is a BIG one**)
  - Support Systems (IVR, Analytics, Billing, Workforce Management)
    - Self Manage
    - Outsource
  - Business Intelligence
    - “Do I Really Know What My Clients Need???”
    - Establish Internal Growth Strategies
Connectivity Options: Convergence

Customer / Caller

PSTN

Media Gateway

“other” partners

Customer / Partner

Service Provider (Redundant Data Centers)

Media Services

VACD

Outbound Dialing

Audio Storage

Expanded Applications

Speech Recognition

Voice Session Control and/or Data

Voice Session Control and/or Data

Voice Switching PBX/ACD

3rd Party Call Center

Media Services

Browser Services

vXML

Web Services

Cache Services

Customer MPLS

Customer MPLS

IP Carrier

Call Center

Outbound Dialing

Speech Recognition

MPLS

Audio Storage

Expanded Applications

Media Services

“other” MS

“other” partners

Customer / Caller
Summary

- Research Indicates Contact Centers Aren’t Going Away
  - Get Ready….!!!
  - Continued Investment is Network Performance & Distributed Processing

- “Brick & Mortar” Centers Are Not “Necessary”
  - Multiple Work At Home Solutions are Available
  - Voice Search Can Strengthen Agent Interface in All Cases

- Good Automated Experiences Tend to Produce Good Agent Experiences
  - Invest in Producing High-Quality IVR Interfaces

- Analytics is Changing the Landscape of Quality in Contact Center Management

- What is Voice Search?
  - I don’t know for sure yet, but I know it’s gonna’ be really cool!!!