SIV Applications and VoiceXML

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Quick Review - Markets

- Broad markets
- Government & private industry
- North America is the biggest market
- Australia & Europe are growth areas
- Leading industries
  - financial services
  - corrections
  - law enforcement and intelligence

Quick Review - Applications

Most widely-deployed applications

- password reset
- monitoring/reporting
- access control (e.g., bank account)
- surveillance/lawful intercept

SIV in VoiceXML

What Kinds of Applications Should Be Supported by VoiceXML?

SIV in VoiceXML

Four areas where applications differ

- User interaction
- Input device
- Application runtime
- Architecture

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User Interaction

1. User-application dialogue for SIV

   IVR, user knowingly using SIV (PR, M/R, AA)

2. User-application dialogue for another purpose

SIV in background. user-system interaction is the same as for #1 – possible privacy issue (PR, M/R, AC)

3. No user-system dialogue (S/LI)

4. Combination e.g., AC with watchlist check

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Type of SIV in Dialogues

1. Text dependent (PR, M/R, AC)
2. Text prompted (PR, M/R, AC)
3. Text independent (any app)
4. Combination (any app)

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Input device

1. Telephone used as a telephone (any app)
2. Other device used as a telephone (any app)
3. Telephone not used as a telephone (AC)
4. Other device on a non-telephony network (any app)

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Application runtime

1. Streaming (almost any app)
2. Buffered (almost any app)
3. Batch/Stored (S/LI)

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Architecture – where is the SIV done?

1. Network – Centralized (any app)
2. Network – Distributed (any app)
   - 2a. Multiple servers - same functions
   - 2b. Multiple servers - different functions
3. Embedded (AC)
4. Distributed SIV processing (any app)

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Architecture – multiple factors

1. ASR and SIV (PR, M/R, AC)
2. Multiple SIV engines (any app)
3. Multiple biometrics (any app)
4. Multiple security factors (any app)
5. Multiple search factors
   SIV with speech search (S/LI)