Basic Mobile Technology for Basic Support

Health and Wellbeing Breakout

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Mobile Emerging Market Overview

- Two types of market (3.3B cellphones WW)
  - City center / USA and European (10%)
  - Rural and urban (90%)

- Rural / Urban characteristics (BOP)
  - Very large numbers of people / Socially based systems
  - Very low income / Low value transactions
  - Little or no technology, skills or infrastructure

- Technology Availability
  - Basic cell phone (voice and SMS)
    - Low cost handset and no data plan

- Business models
  - Government to citizen
    - Health, agriculture, Social Services, Education
  - Telco, Finance
  - Consumer to Consumer
Simple and basic Health Care support and advice can be difficult to obtain:

- Access to Hospitals, Clinics and Pharmacies
  - Distance
  - Transportation
  - Lines and availability
- Little or no technology or infrastructure support
  - Internet
  - Computers

Very large numbers of people require healthcare information
- Scale
- Cost

Real time healthcare information is important and difficult to obtain
Simple health care information available from a cell phone
- Patient phones local access number from basic cell phone
- Provided with voice menu system which provides simple healthcare information
  - Configured for local healthcare issues
  - In local language using local terms and descriptions
  - Using locally available medicines and treatments
- Minimal health care professional impact

Result: Improved health care at a very low cost

*Internet style health care on the cell phone*
Voice Web pages
- Provide same information on Web and phone

Illness information
- 70% of people want to understand medical problems
- Rapid growth of web based medical information systems (WebMD etc)

Health and lifestyle advice
- Preventative medicine
- AIDS / Sexual / Diet / Exercise
- Standard and customized

Treatment planning
- Outpatient and long term care

High Visibility, Low Cost Social Program
Voice Based Service (IVR) with voice based programming model

- Low cost implementation
- Scalable
- Basic and feature phone client support
- Language and Education agnostic
- No programming skills required
- Based on Speech Server
- Cloud service
Microsoft Speech Server

Asterix System

PSTN

Microsoft® Speech Application SDK

+ Visual Studio .NET Development Workstation

Media Gateway

Speech Engine Services (SES)

Telephony Application Services (TAS)

Telephony Interface Manager (TIM)

Topology

Telephony

PSTN

PBX

TDM

Asterix System

SIP/RTP

Development Workstation

Tools

Microsoft® Speech Application SDK

+ Visual Studio .NET

App Deployed

ASP.NET Web Server

Web Pages

Grammars

Prompts

ASP.NET Controls

Back-end Connectivity

SQL – Logging & Reporting

Treatment DB

ADO.NET, ODBC, Web Services, SOAP

HTML + SALT + JScript

Telephony

TDM

TDM

TDM

HTML + SALT + JScript

ASP.NET Controls
Doctor / healthcare professional
- Provides information (like a web site)
- Not a replacement for a Doctor
- No legal implications

Emergency and Call Center
- Not a replacement
- Call center filtering

Phone and internet
- Local phone number in Hospital / Clinic
- Internet connectivity
- Service in the cloud
Media gateway in Local Hospital attached to local phone line and Broadband
Application provides
- Menu and navigation system
- Voice and text storage and replay
- Ability for Medical professional to:
  - Configure and update
Minimal cost, skills and time
Pilot testing in a few locations in a few Countries (Mexico and Peru)
Understand technical, social organizational and health constraints
- Validate approach
Success

- Social
  - Huge demand
  - Simple for end users
  - Provides real low cost healthcare
  - Scales to millions
  - Sparks new applications

- Technical
  - Basic Phone
  - Voice
  - Voice programming
  - Cloud service

Issues

- Scale to billions
- Economic sustainability
- Business model
- Politics