

PUTTING SPEECH TECHNOLOGY IN YOUR HANDS

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LangTech 2003
Paris



VoiceSignal

Voice Signal Technologies

- ❖ Voice Signal Technologies develops efficient, speech-centric multi-modal interfaces for embedded devices.
 - State-of-the-art performance
 - Small computing requirements
 - Stingy memory requirements
 - No hardware impact
- ❖ VST Interfaces are easy to acquire and use
 - Embedded on cell phones and PDA's
 - Speaker independent/out-of-the-box usability
 - Intuitive multi-modal user interfaces

Advantages of Embedded Speech Applications

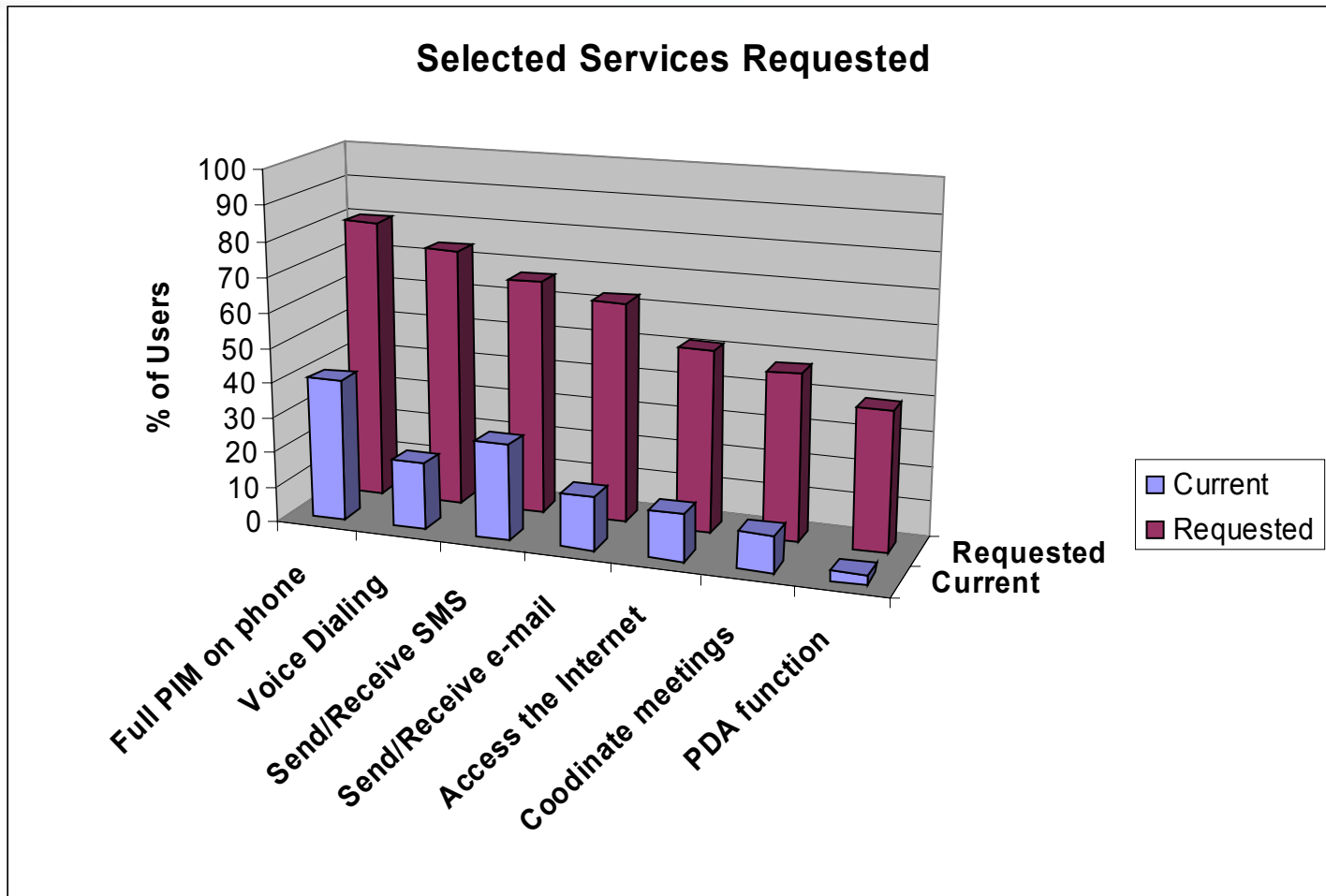
- ❖ Accuracy
- ❖ Availability
- ❖ Responsiveness
- ❖ Power Efficiency
- ❖ Ease of Application Integration
- ❖ Adaptability
- ❖ Security
- ❖ User Interface

Features Requested in New Phones

Full PIM on phone	80
Voice Dialing	74
Send/Receive SMS messages	67
Alarm Clock	66
Downloadable Ringtones	65
Send/Receive e-mail	63
Calculator	61
Access the Internet	52
Games	51
Receive text alerts	48
Coordinate appointments/meetings	48
Share information via infrared	40
PDA function	40
View and pay bills	32
Use phone to hear music	31
View photos/multimedia	31
Camera	26

Wireless Data Services Attract Strong Interest Among Subscribers Upgrading to New Phones"
Telephia/Harris Interactive Study 8 July 2002

Features Enhanced by a Speech UI



A Sign of the Times

“ I have always wished that my computer would be as easy to use as my telephone. My wish has come true. I no longer know how to use my telephone.”

Bjarne Stroustrup (originator of C++)

This Year in Embedded Applications

❖ Three Applications Launched

- Speaker Independent Command and Control
- Speaker Independent Digit Recognition
- Speaker Independent Name Recognition

❖ In Several Languages

- US English
- Korean
- (Spanish)
- (Portuguese)
- (French)
- ...

Samsung offerings which include VST

Launch Date/Models

Operators



Aug 02 - A500
May 03 - N270
Aug 03 - A600, A620



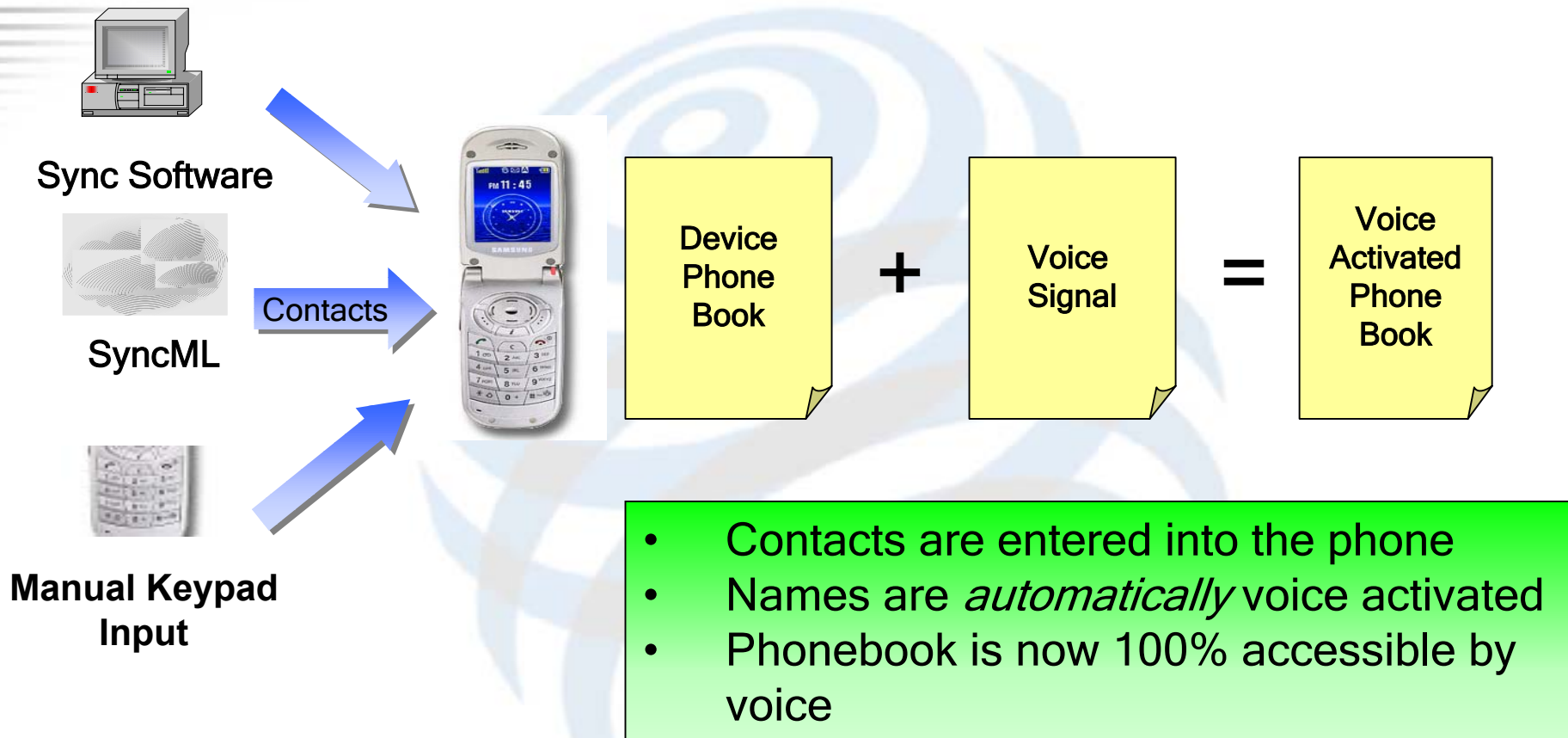
May 03 – i700
Nov 03 – i600



Jun 03 – E250
Nov 03 – E300



The Voice Activated Phone Book



Motorola offering including VST

V60T Color - Launched September 2003



Voice Signal Features:

- Voice Activated Digit Dialing
- Voice Activated Commands
- Interactive Voice Dialogue UI
- Multimodal
- Multiple Languages



“Upside: The color V60t has improved voice commands: you can activate dialing by speaking either a name or each digit of a phone number...”

Media & Consumer Feedback: i700

Brighthand reviews the Samsung SCH-i700 Pocket PC Phone

By Steve White | Contributing writer May 15th, 2003

“As I mentioned, the phone functions are nicely integrated, and the included voice-activated dialing software from Voice Signal Technologies is perhaps the "killer app" that integrated Pocket PC phones have been waiting for. Voice Signal allows you to dial any name in your contacts simply by speaking their name, or you can choose to dictate a phone number and the software will dial it. The real strength of this software over others is that Voice Signal is speaker independent and no training is required.

Speaking to the recognition engine is done at a natural pace, making it not only a productive and natural, but also enjoyable way to make your calls. You are guaranteed to amaze your friends when you show off this feature. If you have a lot of contacts with hard to pronounce names, the software will let you train individual contacts as required, although during my testing I found that to be unnecessary.”

http://www.brighthand.com/article/Samsung_i700_PPC_Phone



CNET Reviews

VGA-1000/features

“Like the SPH-A600, this mobile includes VoiceSignal's voice-activated application, which lets you attach a voice command to all your contacts in your phone book. Thus, you can call anybody in your contact list by saying his or her name. We tested this feature extensively and were impressed with its capabilities.”



SprintUsers.com: General Forum

Thread titled, "Samsung A600 Users"

Posted: Tues July 22, 2003 5:51 pm

Just push and hold TALK and then say NAME DIAL

When "Samsung Lady" says "name please" just say one of the names in you phone book. You'll here an "internal lady" repeat it back pronouncing how it's spelled.

"Samsung Lady" will ask if that's right and then dial.

Try it...it worked with my last name Allebach and that's one that no one knows how to say. It worked with Ben and Zimmer (where I work)

That's very cool I must say...



<http://www.sprintusers.com/forum/showthread.php?s=08d6654f074d6b9022e50fe98e6459d2&threadid=20582>

A Demonstration

❖ Samsung a600

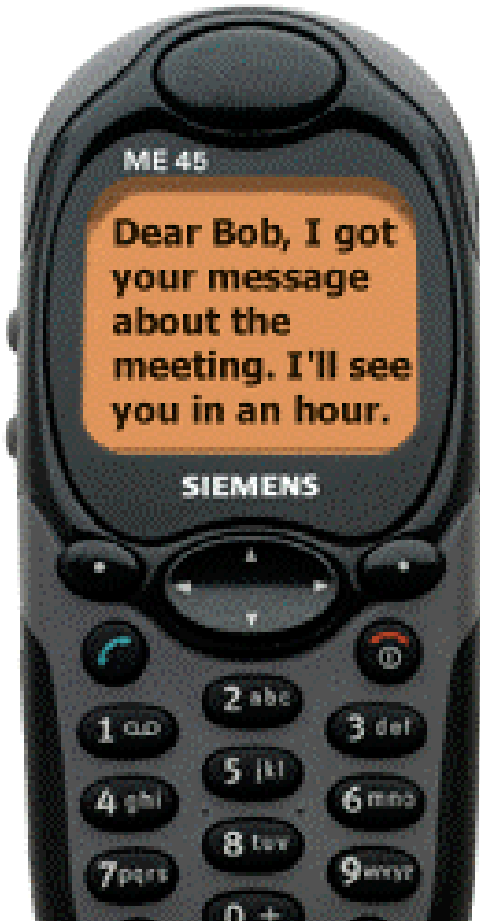
- Command and Control
- Digit Dialing
- Name Dialing
- Contact Lookup

Speech to Text for Messaging



Keypad
3 Minutes
84 Tiny Key
Strokes

2621*0 40 4680
9687063772430 226880
8430 63384640 10
41*****550 7330 9680
460 26046871



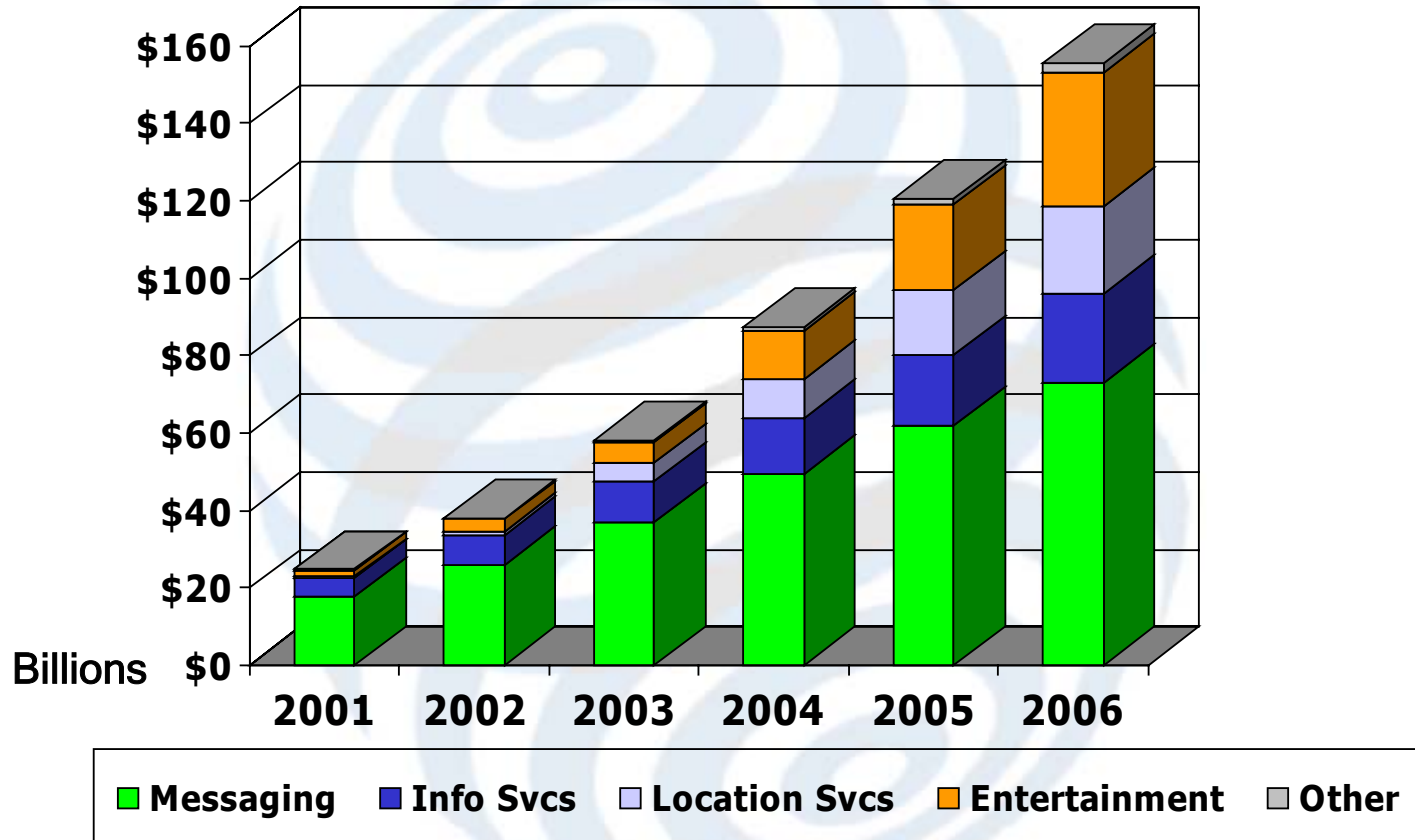
Voice
3 Seconds
0 Key
Strokes

“Dear Bob comma I got
your message about the
meeting period I’ll see
you in an hour period”

Power Advantage for Speech to Text

- ❖ Most of the power requirements of a mobile telephone are in the voice-band transmitter.
- ❖ Converting speech to text and using a low power data connection allows much more efficient transmission of information.

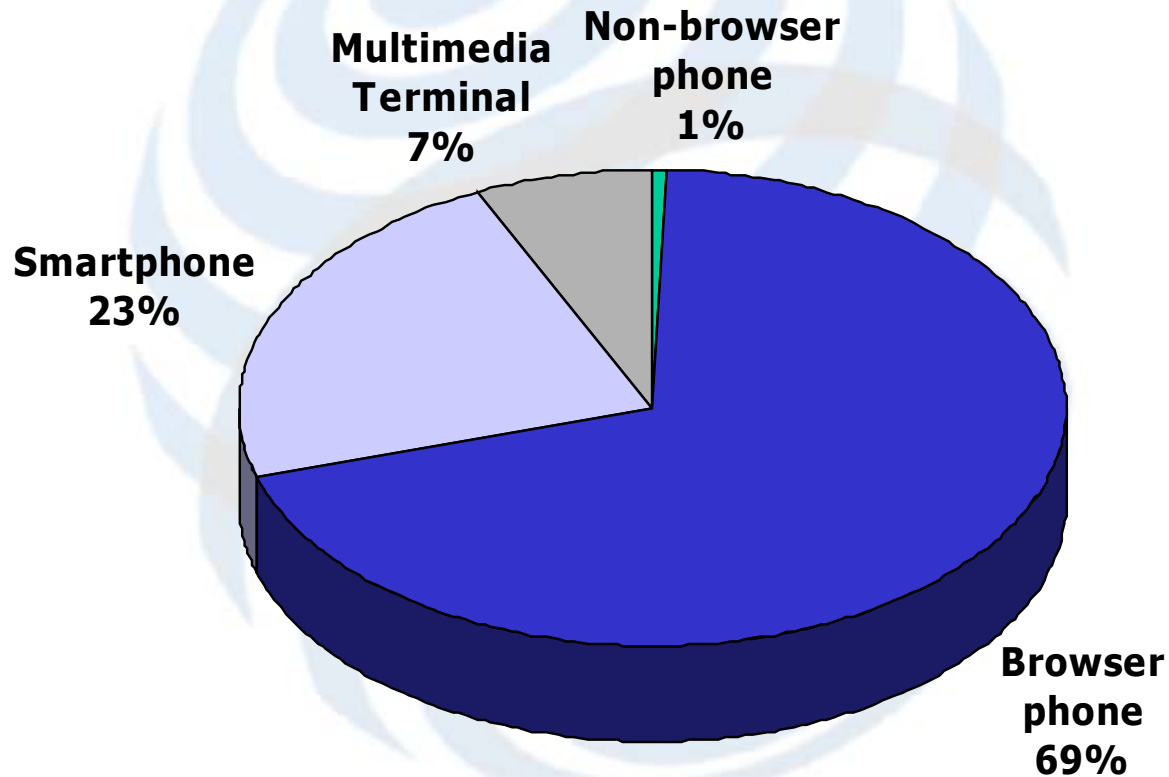
The Global Market



Source, "Global Wireless Device Market," Strategy Analytics, October 1, 2001

Mobile Device Segmentation: 2006

Handset Sales Volume (1 billion units)



Source, "Global Wireless Device Market," Strategy Analytics, October 1, 2001



Thank You

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