

**Unisys Communications
Market Source Services**

CONSUMER SPEECH SOLUTIONS.

- > **Systems Integration.**
- > **Outsourcing.**
- > **Infrastructure.**
- > **Server Technology.**
- > **Consulting.**

UNISYS

Imagine it. Done.

Scope of the Document

This document examines speech solutions in the consumer market, with examples taken from both Europe and the United States. Having seen tremendous success in the call centre market, speech technology has now arrived at the door of both wireless and wireline operators who are looking to speech as a method of reducing churn and generating new revenue streams in an already saturated marketplace.

The document considers examples of speech solutions in the consumer market place, identifying what makes these particular solutions successful or unsuccessful and what other operators wishing to launch speech solutions can learn from them. All case studies referred to are correct at the time of writing.

This document details the following consumer speech solutions:-

- ▶ Voice portal
- ▶ Voice activated dialling
- ▶ Voice controlled email
- ▶ Voice automated directory assistance
- ▶ Voice controlled voicemail

Author:-

Amanda de Jong Cleyndert

For Further Information:-

Amanda de Jong Cleyndert:- +44(0) 1895 862531

Nick Lake:- +44(0) 1895 862398

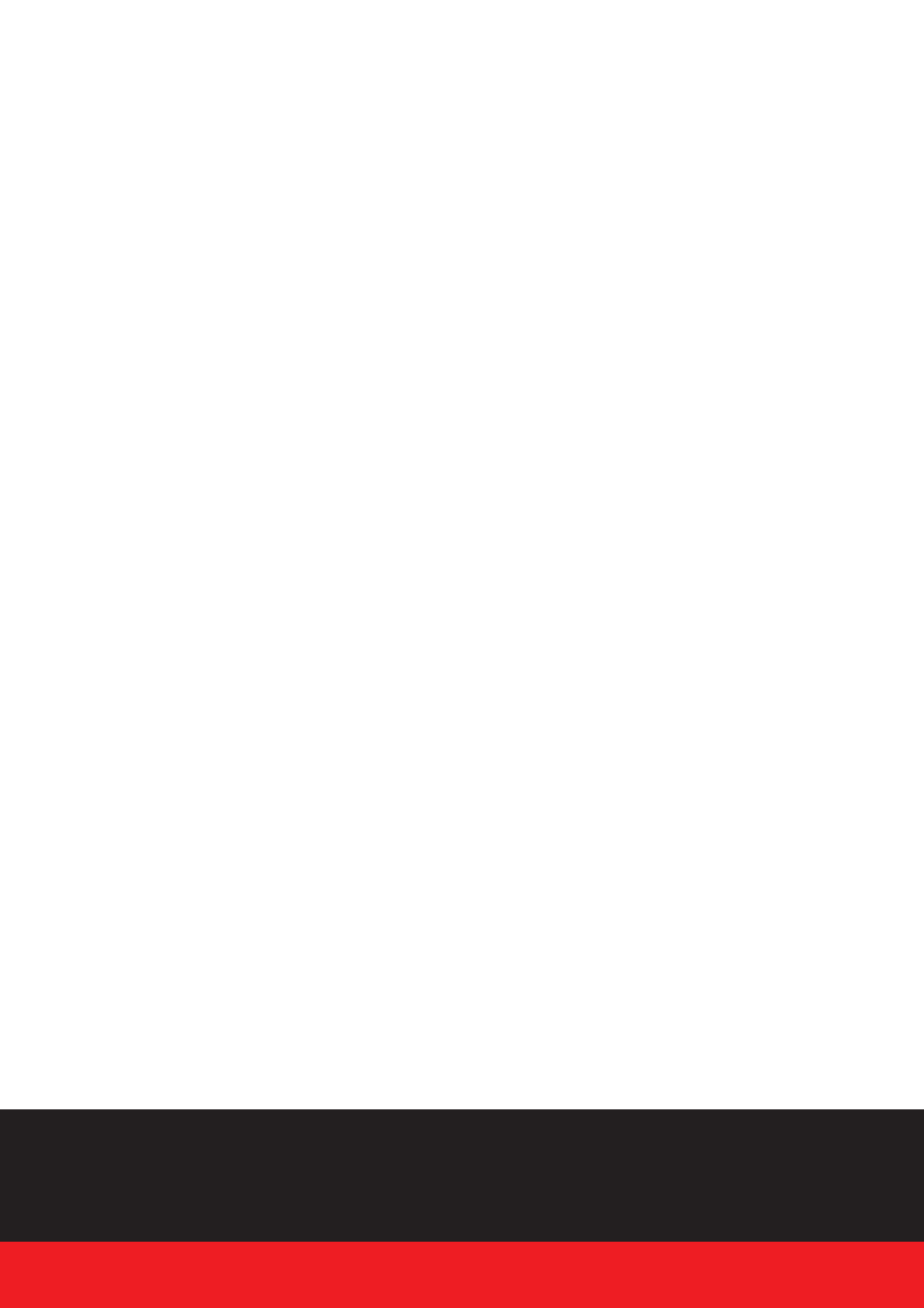
Tim Swift:- +1 215 986 6578

Email:- marketsource@gb.unisys.com



CONTENTS & FIGURES

1.0	Introducing Speech	1
2.0	Speech for Consumers	2 - 4
2.1	Messaging Applications	
2.2	Information Services/ Directory Assistance	
2.3	Voice Portal	
2.4	Voice Activated Dialing	
3.0	Case Studies	5
3.1	AOL - Educates	5
3.2	Telecom Italia - Speak to me	6
3.3	Sprint PCS - Drive Safely	8
3.4	Verizon - Talking your Language	10
3.5	T-Mobile - Keep it Simple	12
3.6	Orange UK - Testing the Waters	13
4.0	Recommendations	15
Figure 1:	Summary of Speech Solutions in the Consumer Market	4
Figure 2:	Extract from AOL by Phone Newsletter	6
Figure 3:	Content Available via Sprint Voice Command	9



1.0 INTRODUCING SPEECH

Ready and Waiting

Speech technology is making its way into the lives of consumers. Whether it be interfacing with a speech enabled call centre to book train tickets or using a speech front end to access email, it is certainly set to impact how people communicate and undertake transactions in the future.

Operators are constantly on the look out for new technologies which enhance existing services or form the basis of new and innovative products and services. Speech technology is one such tool that can aid operators in their fight for increased subscriber retention and ARPU.

So the technology is ready and available. Accuracy levels have vastly improved in the last few years and more and more vendors are developing niche and mass-market applications for the consumer and enterprise market, but the real question is 'do subscribers really want speech solutions and will they use them?'

Most analyst organisations and speech vendors would argue that they do. One of the latest studies to be undertaken by ABI, estimates that the global speech recognition market alone will be worth more than \$5 billion by 2008. Research conducted by Michelson and Associates of Atlanta¹ evaluated consumer attitudes towards speech and confirmed that consumers do indeed prefer speech interfaces to touch-tone systems and are satisfied with a speech interface as an alternative to a live customer service representative.

However, to truly appreciate the potential that speech has in the consumer market, this document looks at real life examples where in some cases more than 50% of subscribers are adopting one or more speech solution when they join up with a new operator.

The real question is 'do subscribers really want speech solutions and will they use them?'

¹ Will consumers use Speech? Michelson & Associates of Atlanta January 2003

Until now, the impact of consumer speech solutions has been 'hit and miss' in terms of their commercial success, but service providers such as Verizon and Sprint in the US are proving that launching a suite of speech solutions can create new revenue streams.

How speech solutions are positioned and packaged in the consumer market varies from service provider to service provider, however the following generic strategies can be seen:

- ▶ Speech solutions launched as stand-alone offerings

Orange UK offer their voice portal via 177 but their email reader service is accessible from option 4 in the voicemail menu. These services are communicated as distinct and separate speech solutions to customers.

- ▶ Speech solutions launched as a package of services

Sprint originally launched a stand alone voice activated dialling service called Voice Command, but has since gone on to develop this service by offering a voice portal and other speech solutions. The services are marketed as one solution whereby content and a number of services can be accessed using speech.

- ▶ Hybrid model

Verizon offers speech solutions via a single point of access, but they can also be purchased as stand alone services.

2.1 Messaging Applications

Messaging applications are often seen as the 'gateway' to accessing content and services via speech. Email and voicemail are two messaging applications ripe for speech enablement. Speech controlled voicemail allows subscribers to manage their voice messages with commands such as

'delete', 'next' and 'call'. The business case is built on the increased use of voicemail, in particular the increased use of a call back² (call return) feature which drives increased airtime. Voicemail is a logical point of access from which to begin offering new speech-automated services.

As well as speech enabling simple prompts, the entire voicemail DTMF system can be speech enabled, allowing consumers to have complete control of their voicemail using speech. Changing a voicemail greeting can take 15 steps using traditional DTMF menus, but once speech enabled all subscribers need to do is say "I want to change my greeting".

Speech controlled email is becoming popular across Europe. Using a text-to-speech engine, subscribers can listen to their email messages via their mobile phone (sometimes known as email reader) and in some instances, respond to emails via voice attachments. There are complexities with using this service such as how a user is notified of new messages, which email account should be accessed and how this offering folds into the wider unified messaging area. This service is set to become an important benchmark for the success of speech in the consumer market.

Other messaging services such as SMS can also be speech enabled. The proliferation of text messaging in recent years has meant service providers are looking at new ways of enhancing the service. Wireline operators are looking to cash in on the lucrative SMS market by allowing text messages to be sent to the fixed line phone via text-to-speech or an SMS enabled handset and in some cases replied to, using an SMS enabled handset or voice attachments.

2.2 Information Services / Directory Assistance

Speech automating directory assistance services provides massive cost savings for service providers in the directory assistance/directory enquiries market. Approximately 20% of requests can now be automated using speech³.

2 Call back keeps chargeable calls in the network and facilitates call stimulation. Take up rates are between 5% and 20%.

3 Presentation by Speechworks - Getting to 20%

Consumer directories are becoming more segmented as the need for enhanced services due to deregulation occurs. Enhanced services include international directories, access to mobile phone numbers, multi-lingual offerings and location based services. Speech enabling part of the directory assistance offering can lead to dramatically reduced operating costs for service providers.

2.3 Voice Portal

A voice portal is a central access point to a comprehensive set of content and services which can be accessed via voice commands. Many view a voice portal to be a stand-alone service, however it can also be viewed as an access point for other speech services – similar to voicemail. The aim of a voice portal is to drive airtime (which is often charged for in Europe) and reduce churn by allowing subscribers access to services which reside in the network.

The market for voice portals has been held back for the past 18 months, showing single digit growth, although it is forecast to reach double-digit growth in the next few years. In 2001, there were 1 million mobile voice portal users globally and Allied Business Intelligence predicts 56 million voice portal users by 2005.

2.4 Voice Activated Dialling

Voice activated dialling (VAD) can be offered to both consumer and enterprise markets. It allows subscribers speech access to call control. This service is being driven due to hands free legislation whilst driving, as in the US.

VAD allows subscribers to 'say' the name of the person they want to call directly into the phone, as opposed to manually searching through the phone's menu. It also allows subscribers to call a number by speaking the digits into the phone (for numbers that aren't saved into the address book). The address book is held in the network which means users can store a larger volume of data than they would be able to in their handset.

Figure 1 provides a summary of speech solutions which have been launched in the consumer market place, including those which will be covered in more detail in this document. This list is not exhaustive.

Figure 1: **Summary of Speech Services in the Consumer Market**

Service Provider	Type of Service	Service Brand	Date Launched
AT&T (USA)	A wireless voice activated dialling service is the latest addition to AT&T's speech services.	#121 VoiceDial	November 2002
OneTel (UK)	Voice controlled email from any OneTel email account and basic voice portal.	Purple Duck	Unknown
D2 Vodafone (Germany)	Voice activated dialling service.	SprachWahl	Unknown
Vodafone (UK)	Voice controlled email where customers can listen and manage their emails from their existing Internet account.	Voice Email	November 2002
T-Mobile (Germany)	Voice portal and voice activated dialling service known as EasyGate, voice controlled call return and voice controlled network management.	EasyGate and ServiceManager	Unknown
Orange (UK)	Voice portal offering and email reader.	Orange Voice Media (voice portal offering)	November 2002 (email reader)
Telecom Italia (Italy)	Voice portal offered to fixed line customers, a mobile voice portal and an email reader service, along with other speech services.	Dimmitutto (fixed line voice portal) i-TIM Voice (mobile voice portal)	October 2001
Portugal Telecom (Portugal)	Speech automated directory assistant which includes white and pink pages, reverse directory assistance and existing phone number. The service is used to replace part of the call centre.	Unknown	November 2000
Cegetel - SFR (France)	Voice portal.	Vox	Unknown
Telia (Sweden)	Directory assistance. The service is an automated white pages service positioned as an additional channel to the call centre and the Internet, but at a lower price.	Unknown	Unknown
E-plus (Germany)	Voice assistant.	e+ Voice Assistant	January 2001
Orange (France)	Voice portal - speech enabled IVR kiosk, acting as a gateway to third party service providers such as Reuters and email reader.	711 (voice portal) 840 (email reader)	2001 (voice portal) 2002 (email reader)
Sprint PCS (USA)	Voice activated dialling service, email reader and a voice portal.	Sprint PCS Voice Command	2001
Japan Telecom (Japan)	Voice portal - positioned as an Internet Audio Portal Service.	Voizi	Unknown
Telstra (Australia)	Directory assistance. A speech enabled national directory. They have 10 million entries in the directory and receive 400 million calls per year.	Unknown	2001
Europolitan Vodafone (Sweden)	Affiliated voice portal which allows subscribers to access news and weather updates, quotes of the day and wine tips.	Voice Portal 825	Unknown
AOL (USA)	Voice portal allowing subscribers to access their email by phone and additionally access simple content.	AOL by Phone	October 2000

Within this section, a number of case studies from across Europe and the United States are explored. Some of the service providers referred to have very established speech offerings, whereas others have only recently entered the speech market. The solutions themselves are evaluated from the perspective of a subscriber – how easy the service is to provision, how well the speech recognition technology works etc. How the solution has been positioned, marketed and launched and whether it can be deemed a commercial success or not is also analysed.

3.1 AOL Educates

The AOLbyPhone service is a consumer speech solution which allows AOL users to access their AOL email account (email reader) and simple content via the phone (voice portal) – either from their fixed line phone or from their mobile phone. Launched in October 2000, the service was on the market behind its competitors such as Yahoo! and Lycos.

3.11 Strategy

The AOLbyPhone offering is part of the AOL ‘anytime strategy’ which aims to move the company from the land based Internet world and portal strategy, into wireless communications providing services to AOL members anywhere, anytime and across multiple platforms and devices. AOL is ranked number 3 against MSN and Yahoo! in terms of the number of visits it receives and most of those visits are from AOL subscribers who are automatically directed through to the site.

Rebranding the company from AOL.com to AOL Anytime aimed to communicate to users the new strategy - access information anywhere – which is where AOLbyPhone fits into the strategy. AOL wanted to improve customer service by enhancing their customers' interactive experience, expand their market reach and create new business opportunities by enabling subscribers to access AOL's Internet service by phone.

3.12 Product

With the AOLbyPhone service, AOL members can have their emails read out to them via the phone and get basic information such as stock and weather updates. One of the more interesting additions to the service is the ability for an AOL member to listen to their email and then respond to the sender with a free 2-minute phone call to anywhere in the US.

To use the service, AOL members call 1-800-AOL-1234 and are then guided through the system using a friendly and laid back application persona. AOL members are prompted to use keywords such as ‘weather’ to navigate through the system. Whilst a female voice is used to guide users through the system, different personas are used for different services, e.g. a male voice gives weather updates.

The email reader is the most compelling part of the AOLbyPhone offering, which plays new emails (users cannot set preferences for the order in which emails are read out), giving email information such as day/time received, sender and subject. The user is then asked ‘what do you want to do’ and is given options such as ‘read email’. Once an email has been read, the user is asked ‘what now’ and is given options such as delete or save. The system is not advanced as yet to cope with responding to emails through voice attachments, but gives users the ability to reply to the email sender through a phone call of which the first two minutes are free. Mobile operators who have launched an email reader service but do not allow any reply to be composed could offer this type of service, where a return call is charged for and thus generate increased revenue through call back.

3.13 Promotion/Place

The launch of the service was accompanied by a worldwide marketing campaign as part of AOL's launch of its version 6.0 Internet service. The CD's were offered co-branded with retail outlets where the CD's were distributed.

AOL sends its members and non-members a newsletter via email which keeps customers up to date with the new content they can access (see figure 2 for an extract). The newsletter focuses on specific events, such as ‘use AOLbyPhone to organise an Easter lunch with friends’. It then tells users how to use their speech enabled restaurant finder service. Within the newsletter, AOL reminds users how to use the navigation and key prompts such as ‘Help’. They also educate users about features such as ‘barge-in’⁴ and print user feedback. The service is available via the AOL website which provides frequently asked questions and demonstrations of the service.

3.14 Pricing

Despite the fact that the Yahoo and Lycos service are free, AOL charges a flat fee of \$4.95 per month for accessing content and emails using speech. Upon launch, the service was offered for free for the first three months. It is now offered to new customers on a month’s free trial.

3.15 Performance

AOLbyPhone received 100,000 calls in the first four days of launch. As of January 2001, AOL had

300,000 registered users – a penetration rate of 1.2% after 3 months of launch. The service is currently only available to North American AOL customers, despite persistent rumours that it will be available in the UK market.

In summary, the reason for AOL’s success is due to a number of factors. AOL has huge marketing power and relies on above the line and below the line marketing campaigns to sell their solutions. More importantly though, is how AOL educate their customers. They use channels such as newsletters to not only educate customers on how to use speech solutions, but also exploit it as an opportunity to cross-sell and up-sell other services. AOL is one of the few service providers to proactively communicate new content within their voice portal to customers.

3.2 Telecom Italia

Telecom Italia has implemented a number of speech solutions for both their fixed line and mobile subscribers. They were one of the first Italian companies to offer speech services and Italy’s market acceptance of speech solutions has been rapid. Italy has a very mature mobile market and mobile phones are considered status symbols,

Figure 2: **Extract from AOL by Phone Newsletter**

Good News for Spring

Be the First to Try the Latest Version of AOL by Phone: Tomorrow, March 28, we will launch a pre-release, enhanced version of our service, including improvements to the e-mail forward and e-mail attachment features. We are looking for members like you to provide feedback on the improved service. To participate in this test, visit AOL Keyword: AOL by Phone Beta, and tell us what you think!

March Madness: Its that time of year! Use AOL by Phone to keep track of the Final Four during the NCAA tournament - just say "Sports," "College Sports," and the full name of a team to hear the latest update during the games.

Hippety, Hoppety: With Easter on its way, use AOL by Phone to help plan an Easter brunch with your family or friends. From the main menu, simply say "Restaurants." You can search by restaurant, cuisine, or neighborhood or even get a list of "Member Picks." And, when you've made your choice, AOL by Phone can connect you directly!

Be sure to visit AOL Keyword: AOL by Phone for the latest news and tips.

Highlights user empowerment and promotes new features

Event based marketing

User education continually reinforced

4 The ability to interrupt a prompt

AOL is one of the few service providers to proactively communicate new content within their voice portal to customers.

so the more enhanced services a subscriber has, the more 'important and fashionable' they are perceived to be. Enhanced services are very popular in Italy, particularly with the youth market. Telecom Italia speech services are packaged as stand alone services rather than as a suite of services.

3.21 Strategy

Telecom Italia are reputed to be a world leader in the development of speech applications for their consumer and enterprise customers. As part of an R&D initiative within the group, the Telecom Italia Lab was founded for the development of innovation and the identification and development of new business opportunities. Telecom Italia are so advanced in the speech market that in February 2001, the Telecom Italia Lab gave birth to Loquendo, a company dedicated to the convergence of innovative voice technologies, including voice recognition and voice synthesis, text to speech and interactive voice applications, now majority owned by Telecom Italia.

Telecom Italia's strategy is the development of enhanced services to position them as the most innovative service provider in the domestic market. Speech as a user interface and communication mechanism has become an integral part of Telecom Italia's offering to both consumer and enterprise markets in both its fixed line and mobile groups.

3.22 Product

Telecom Italia offer a number of speech solutions to their customers. In this section, services including the Telecom Italia fixed line voice portal, email reader and speech enabled directory assistance service will be examined.

Voice Portal

Telecom Italia offer their residential fixed line subscribers a voice portal service which was launched in October 2001 called Dimmitutto – or 'tell me everything'. It provides access to

information from selected Internet content providers. Subscribers call 412 from their fixed line phone and select option 3. If subscribers want information from abroad, they call 412, select option 4 and can speak in English or Italian. Planned in November 2000, trials were undertaken in specific regions in Italy. This trial represented the first experimentation of voice portals in Italy. In June 2001, the voice portal solution was extended to the whole of Italy with a number of the services enriched.

Much of the content e.g. weather, traffic and movies is automatically localised for the caller and some - such as pharmacies - includes call completion capabilities. Registered users may even personalise their content selections for example, My-City, My-Horoscope and My-Portfolio. Subscribers can organise the content they listen to as they want, allowing for advanced personalisation. Telecom Italia also offer their mobile customers a voice portal which is targeted at the youth market.

Speech Automated Directory Assistance

Telecom Italia fixed line subscribers can access speech automated directory assistance on their fixed line phone. This large-scale deployment contains over 25 million entries and processes hundreds of thousands of calls each day. By dialling 1412, Telecom Italia customers reach speech-automated reverse directory assistance, where the name and address of a customer is provided for given telephone numbers.

Email Reader

Telecom Italia's email reader service – known as "187" Memotel on Line is integrated into a Unified Messaging service. The email reader enables subscribers to use all email features, regardless of the email provider. Messages and attachments are read with text-to-speech in multiple languages. The text-to-speech engine automatically detects the language used in each message or attachment. This service is promoted to business customers.

Speech as a user interface and communication mechanism has become an integral part of Telecom Italia's offering

3.23 Promotion/ Place

Telecom Italia market their consumer speech services via their website and through marketing literature such as user guides. Their communications are very simple and the content available via the voice portal is clearly communicated and frequently updated. The ability to personalise content is a key differentiator for Telecom Italia. Much of their marketing communications focus on the ability to personalise content to extract the maximum benefits from the service.

3.24 Pricing

Telecom Italia uses hybrid pricing models for their range of speech services, based on charging for usage. For their voice portal services they charge a connection fee for dialling into the voice portal and then a per-minute charge. For example, connecting to Dimmitutto costs \$0.12 and subscribers are then charged \$0.96 per minute to listen to the content.

3.25 Performance

In terms of performance, Telecom Italia is one service provider who has seen success from trials of speech services and has gone on to launch a range of services to cater for its key market segments such as enterprise, mobile and residential customers. Telecom Italia's fixed line voice portal (Dimmitutto) can manage more than 10,000 calls per hour, with the average call lasting three minutes, whilst the speech enabled directory assistance service can process several hundred thousand calls per day. Their success may be in part due to the characteristics of the Italian market. Italy has high adoption rates for enhanced messaging services and mobile phones and enhanced services are viewed as a status symbol.

3.3 Sprint PCS - Drive Safely

Sprint offers its consumer market a suite of speech solutions which have been built on the success of a single speech application, known as Voice Command. The offering includes a wireless voice portal where Voice Command users can access web based information such as stocks, an email reader service and a voice activated dialling service. Sprint positions Voice Command as an entire package of speech solutions and content which their subscribers can access, however the emphasis in their marketing communications is still based on the original voice activated dialling service.

3.31 Strategy

Until recently, Sprint PCS's Voice Command package was simply a voice activated dialling service. Through the success of this initial speech solution, Sprint then began to develop enhancements to the service and new features such as driving directions and restaurant bookings. Their strategy to date, has been building on the success of one service and expanding their portfolio of speech services to increase ARPU based on subscription revenues.

3.32 Product

Voice Activated Dialling

Sprint PCS subscribers can store contact details on Sprint's network via the Internet and then dial any of those numbers on a mobile phone by pressing two buttons on the handset and speaking a person's name. The Voice Command service can hold up to 520 names which can be added in three ways:

1. Via the Sprint web site, users can enter up to 500 names in text form
2. Speaking into the phone, users can enter up to 20 names
3. By calling directory assistance. Priced at \$1.25 for each call, directory assistance will look up 2 names

and add them on request. On the same call additional entries are \$0.50 each. Calls to directory assistance can be via speech or usual DTMF access

Subscribers can call by using names or nicknames, e.g. call 'John Smith' at work.

Subscribers can also call by speaking the phone number into the handset. Sprint publishes user hints which include:

- ▶ Speak naturally
- ▶ Don't shout
- ▶ Speak slowly
- ▶ Avoid places with lots of noise

For expert users, Sprint promote an 'expert mode' where users can skip steps and announcements. This mode can be set and turned on or off via the web site or phone.

Voice Portal

Sprint PCS's voice portal was launched as an extension to voice activated dialing in September 2002 throughout Sprint's markets in the US. The voice portal lets users dial a toll-free number and verbally request web-type information. The voice portal is said to be the first telephone-based voice portal available through a major wireless carrier and only the third major telephone-based service after HeyAnita and America Online's AOLbyPhone to provide speech access to email. The types of content which can be accessed include those represented in figure 3:

Sprint PCS Voice Command customers can also organise content by creating personalised folders such as "My Stocks" with the same personal web page used to manage their phonebooks for voice activated dialling. Customers can just press *TALK and say "Call the Web" to hear the full menu of web information available through the voice portal.

Sprint launched a complementary service to their Voice Command package which allows Sprint PCS customers to access information for more than 260,000 restaurants in over 12,000 US cities by pressing *TALK and saying "Call Restaurants" into any Sprint PCS Phone.

A month later, Sprint launched Voice Command Driving Directions, a service which allows Voice Command customers to listen to information on how to get from one location to another for approximately six million street names in 50,000 US cities. The application tells subscribers information such as where to turn, mileage and estimated travel time. In addition, Voice Command customers can obtain directions to and from 235 major US airports.

Email Reader

The Sprint email reader service offers broader access to email via phone than AOL's voice portal or the public version of HeyAnita. AOLbyPhone is designed primarily to access AOL email services whereas Sprint users can access email accounts

Figure 3: **Content Available via Sprint Voice Command**



from Yahoo, EarthLink, NetZero, Prodigy, Sprint Wireless Web and AmExMail. The most notable names missing from that list are AOL Mail and MSN Hotmail, both of which prevent other online services from gaining access to user accounts. Voice Command customers can read their email and reply using voice attachments.

3.33 Promotion/ Place

Sprint PCS communicates with its subscribers through a number of channels including its retail outlets and website. Sprint is one of the few operators to take advantage of strategic alliances as part of a marketing strategy for launching speech solutions. Sprint PCS have focused on partnering with car manufacturers and vehicle rescue companies to generate demand for its Voice Command services, benefiting from the fact that their main positioning message for the Voice Command package is 'communicate safely'. In 2001 Sprint developed strategic agreements with car manufacturers BMW and Jaguar to offer Sprint PCS wireless voice and data solutions to customers who purchase a 2001 BMW or Jaguar vehicle. Sprint also teamed up with vehicle rescue company AAA to bring AAA customer's discounts on Sprint calling programs and free Voice Command for life.

3.34 Pricing

The entire Voice Command suite of solutions is officially priced at \$10 per month, but a promotion for new subscribers offers the service free for three months and \$5 a month thereafter. Existing subscribers to Voice Command can get the lower price by calling Sprint. The service is also free to Sprint PCS subscribers who are signed up for calling plans costing \$49.99 per month with a one-year contract.

3.35 Performance

Sprint are perceived to have been successful at developing and launching a range of speech solutions. They have built on the success of their initial VAD service and continue to add other value added services to the package. At a recent

Nuance conference, Sprint presented the results of a consumer survey which stated:

- ▶ 75% of heavy Voice Command users were extremely or very satisfied with Voice Command
- ▶ 81% of users indicated that the service performed as they expected
- ▶ Voice Command customers have higher ARPU, minutes of use and retention than non Voice Command customers

The Voice Command pricing model is clear and they have put great emphasis on educating their customers by publishing frequently asked questions, user hints and tips as well as a very clear online demonstration of what the service allows users to do and how it works. Though strategic partnerships, Sprint have intelligently targeted users - those users most likely to require the service based on the positioning of VAD as a safe way to communicate and access information whilst driving.

3.4 Verizon - Talking your language

In October 2002, Verizon launched a number of speech enabled services targeted at both enterprise and consumer markets. The new service known as 'Voice Gear' lets subscribers access their corporate email service, make calls and access a range of content from their mobile phones using voice commands.

3.41 Strategy

Verizon has packaged its speech solutions into two distinct offerings:

- ▶ A speech solutions package for the traditional mobile consumer including voice activated dialling and voice browsing
- ▶ A speech solutions package for the business user including voice activated dialling, voice browsing and a corporate email reader

**Though strategic partnerships
Sprint have intelligently
targeted users**

The positioning messages used to promote Verizon's speech solutions differ according to the target market, for example, the positioning message used for the business market is 'perfect for the modern mobile business person, bringing the power of speech to your everyday business functions' whilst the positioning message for the consumer market is based on speech providing a fun and easy way to connect to and access information.

3.42 Product

Email Reader

An unusual feature of Voice Gear is the ability to access corporate email via voice - a service which is not commonplace in the market as yet. The service utilises Spontaneous Technology's VPN technology which can be installed in an enterprise to extend secure access to applications behind a firewall. To corporate users, this is an attractive feature of the service. Subscribers on the Verizon Wireless network can dial into the service pressing #VG on their keypad and saying 'corporate access'. Voice Gear then allows the subscriber to manage their email from the phone - listen, reply, compose, delete and forward as well as storing messages. This service is targeted at business users only.

Voice Activated Dialling Service

The Verizon VAD service allows users to add up to 2000 contacts and lets them store a range of addresses, seven phone numbers per contact and three email addresses. Features of the voice activated dialling service include the ability to import contacts from Microsoft Outlook, Express and Lotus Notes, add and edit contacts with a web interface and transfer contacts without the need to 'reprogram'.

Voice Portal

Verizon's Voice Browsing service allows consumers access to selected Internet content using voice commands - essentially a voice portal with access to simple content such as news and weather etc.

They also provide voice activated flight tracking and weather information for their frequent flier customers. The voice portal content includes news, sport, horoscopes, weather, stock quotes, movie times and flight information. Users can customise the voice portal with their favourite topics at the website and access specific subjects by saying the name of the topic.

3.43 Promotion/ Place

Verizon promote their speech solutions via their websites and retail outlets. Unlike Sprint PCS, they do not have strategic partnerships with other service providers, nor do they demonstrate the service on their website. Unless you are an existing Verizon Wireless customer it is very difficult to investigate the offering in much detail.

3.44 Pricing

Voice Gear email reader is being sold to business customers for \$9.99 per month. Targeted at both business users and consumers, Voice Gear's voice dialling or voice browsing is priced at \$4.99 per month - a flat fee subscription model. Subscribers can purchase both services at a discounted price of \$8.99.

3.45 Performance

Verizon position Voice Gear as "a convenient new way to make calls and access information" and allow subscribers to purchase each speech solution separately or as a bundle of solutions. The service is predominantly targeted at business users although they do offer the service to their mass market. The package is advanced with users being able to access corporate email accounts as well as import contact details from applications such as Microsoft Office into the voice activated dialling address book. Little is known about the success of the Voice Gear package.

3.5 T-Mobile Germany - Keep it Simple

In March 2002, T-Mobile partnered with Nuance to develop a range of speech solutions including:

- ▶ Voice portal and voice activated dialling service (known as EasyGate)
- ▶ Voice controlled call return
- ▶ Voice controlled network management (known as ServiceManager)

3.51 Strategy

The T-Mobile group is not a leader in speech solutions for the consumer market place – many T-Mobile subsidiaries do not offer speech solutions, however, T-Mobile Germany is leading the domestic market in the development of advanced speech solutions. T-Mobile are aiming to grow their business market and have developed a range of innovative and advanced speech solutions to do so.

3.52 Product

Voice Portal

The EasyGate voice portal enables users to dial telephone numbers stored in their personal address books, make directory enquiries, access information and conduct transactions using their voice. Guided through the system, customers can instruct the address book to 'buy tickets' and they will automatically be connected. Customers can also revert to using key navigation words such as 'help,' 'repeat,' 'suspend' and 'hang up' if necessary.

Voice Activated Dialling

Users are able to store up to 150 personal address book names with up to four different telephone numbers each. These numbers can be entered into the address book either verbally over the phone, or via the Internet.

Voice Controlled Network Management

In addition, customers of T-Mobile's pre-paid service known as Xtra, automatically have access

to a service called ServiceManager that enables them to administer and configure their network settings using simple voice commands. Using ServiceManager, T-Mobile customers are able to enter discount codes, change their rate plans, turn roaming on and off and operate the call return feature. They can also obtain information related to these features. ServiceManager is the first voice-activated application in Germany to deploy natural language voice recognition.

3.53 Promotion/Place

The positioning messages used by T-Mobile are strong and clear - speech is a simple to use access mode of retrieving information and services. These messages are consistent throughout T-Mobile's marketing communications. User hints and tips are provided to subscribers and are reinforced through a number of channels such as the T-Mobile website.

3.54 Pricing

Prices for EasyGate and ServiceManager depend on which tariff a customer is on. Customers pay per minute depending on the time of day they call and the length of their call.

3.55 Performance

The services are targeted at remote workers and professionals or technology savvy mobile phone users. As a result, the services are positioned as an easy-to-use and simple interfaces for callers and as safe way to call people and find information whilst driving. Currently 10,000 calls a day are made to the ServiceManager service.

3.6 Orange UK - Testing the Waters

Orange UK has begun to test the waters in the speech arena, having launched several distinct speech solutions in the past few years.

3.61 Strategy

Orange UK is not launching speech solutions via one gateway (such as voicemail) but position and offer their speech solutions independently - there seems to be little cohesion between the two services. In terms of marketing strategy, it is unclear as to the strategy that will be employed to support the Orange email reader service and whether Orange UK will combine its disparate speech solutions to offer a package of speech solutions such as Sprint PCS, or continue to offer them as stand alone services.

3.62 Product

Email Reader

Orange UK launched their email reader service in November 2002, however no formal subscriber communication was made about the service. It became available to Orange mobile phone users (both business and consumer markets) via their voicemail service.

When dialling into voicemail, subscribers are now given the option of listening to their emails (which is the 4th option in the main menu). If a user chooses this option but does not have their email set up via Orange.net, they are instructed to register at Orange.co.uk so that they will be able to listen to their email messages.

If a subscriber has fully registered with Orange Internet, then they are able to listen to emails. The service uses a mix of pre-recorded prompts (spoken using the female voicemail talent) and text-to-speech for the information contained in the email. The text-to-speech engine reads text adequately, but has difficulty picking up spelling mistakes and reading numbers.

Users are advised of the subject of the email and the sender name before being asked whether they would like to listen to the mail. If the subscriber chooses to listen to the email message, they are played the entire message.

Once a subscriber has listened to the message, they can listen to the message again, save the email and go to the next email, delete the email or get more details. Users cannot yet reply to messages. The service is charged at a flat rate of \$0.29 per minute.

Voice Portal

Orange launched a voice information line in 2002 under the brand of Orange Voice Media. Subscribers can access the service by dialling 177 on their Orange mobile phone and following pre-recorded prompts. The service is not used with speech recognition technology, but uses DTMF for user input. Recently Orange have replaced the pre-recorded information with text-to-speech.

Orange Voice Media gives subscribers access to information and services including:

- ▶ News
- ▶ Lottery results
- ▶ Weather
- ▶ Sport
- ▶ Music (UK club guide)
- ▶ Entertainment
- ▶ Travel (traffic information)
- ▶ Lifestyle (horoscopes)
- ▶ Financial and city (shares prices, portfolio, etc)

There is no evidence to suggest that this service may become voice controlled, however many voice portals are becoming speech enabled as opposed to DTMF entry.

3.63 Promotion/Place

Orange have intended for the launch of the email reader service to be a soft launch, with no signs of a formal press release or any marketing

**Orange UK has begun to test
the waters in the speech arena**

communications as yet. It may be that Orange is looking to identify how successful the service is prior to developing a segmentation strategy and developing appropriate marketing campaigns.

The Orange voice portal has been targeted at the student market and young professionals segment. This can be seen in the website communications and type of content such as the UK club guide. The service is also made available to post paid and pre paid customers (who are predominantly made up of the youth and student market in the UK) and has been positioned as an information service which gives people with busy work and/or social lives, access and control when they need it.

Apart from being communicated on the Orange website, Orange also undertook radio advertising and television show features to promote their voice portal. The service is also communicated in the Orange marketing brochure distributed to Orange retail outlets.

3.64 Pricing

Both Orange UK services are priced on a per-minute basis, which many European operators favour when it comes to charging for speech solutions and both prices are in line with competitive services in the UK. Calls to the Orange voice portal are charged at a premium rate of \$0.63 per minute, as are calls to the email reader service.

3.65 Performance

The Orange email reader service has a long way to go before it becomes easy or pleasurable to use. As no formal communication of the service has been made, Orange may well be planning to improve the service before it is officially launched. How successful the Orange Voice Media service is has not been publicised.

In summary, there are a number of basic but important lessons which can be learned from the operations of the service providers discussed in this document.

1) Offer speech solutions from a single point of access

Don't offer disparate speech solutions. Subscribers who are responsive to accessing one service or piece of content via speech are likely to be responsive to other types of content or services which are accessible through the same medium. Offer speech solutions via voice messaging or a voice portal to take advantage of cross-sell opportunities.

2) Educate, educate, educate

Make use of marketing communications such as websites, offering online demonstrations, frequently asked questions and newsletters identifying hints on how to use the service. Customer education is a key factor in the success of speech in the consumer market.

3) Tell users what's new

A simple concept but rarely practiced in reality! By offering speech solutions via one gateway, it is easier to communicate an offering to users and take advantage of the cross-sell and up-sell opportunities. Don't expect high adoption figures of a service if your subscribers do not know it exists.

4) Don't attempt to target the mass market

Most speech solutions are not mass-market solutions and should be targeted at niche markets - those subscribers that prefer to communicate orally, those who are remote and those who require real time information.

5) Allow for different types of user in the design of a speech solution

Expert users will have different needs than new users. Factor this into the design of the application by allowing for concepts such as barge-in and expert modes whereby subscribers can bypass simple prompts.



Unisys and the Unisys logo are registered trademarks of Unisys Corporation. All other brands and products referenced in this brochure are acknowledged to be trademarks or registered trademarks of their respective holders.

Consumer Speech Solutions

©2003 Unisys Corporation. All rights reserved.
Creative Media Services. Printed in UK. 04/03
www.unisys.com