



Product Brief

Sprex, Inc.

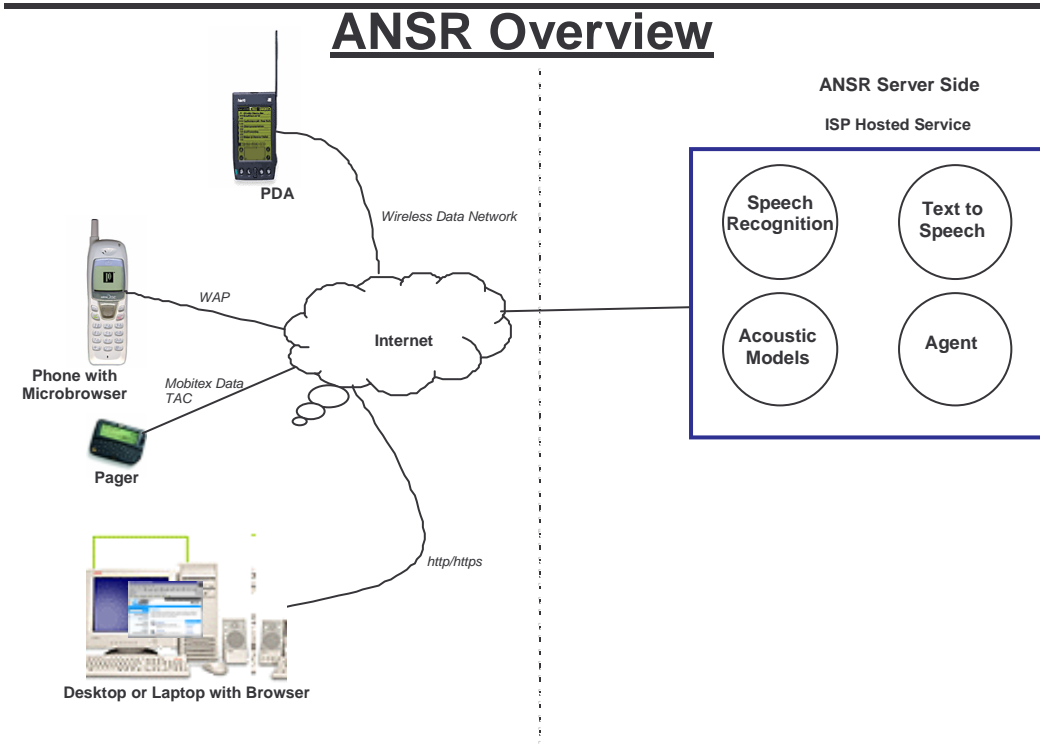
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ANSR™ – Active Networked Speech Recognition

ANSR™ – Active, Networked Speech Recognition from Sprex, Inc. enables “Speech in the Network”™. ANSR™ lets you act on products and services in the network by speaking to them. ANSR™ is a suite of client and server software that provides the infrastructure for a distributed universe of speech-enabled interactive systems.

ANSR™ gives developers the ability to deploy network

distributed, task-oriented, spoken dialog systems to access and control any product or service by voice through the internet or other network. The ANSR™ Developer Package comprises a software developer's toolkit, and client and server programs, licensed to handle five simultaneous conversations.



ANSR™ Characteristics

- **Active:** ANSR™ grammars associate a user utterance with some user-specified action. ANSR™ is intended for task-oriented dialogs, where the grammar describing what the user can say can be fully enumerated as a word lattice or BNF grammar. Applications for action oriented grammars include forms, control functions and queries.
- **Networked:** ANSR™ provides an internet-capable network architecture for speech recognition and response. Any user interface that can be connected to a network can be speech enabled. A network-connected user device running an ANSR™ client communicates with an ANSR™ speech recognition

and system logic engine, running on servers on that network.

- **Speaker Independence:** No training is required for “out of the box” usability.
- **Speaker Adaptation:** Enables improved accuracy with exposure to your voice.
- **Continuous Speech:** Normally fluent speech, with no pauses between words necessary for proper operation.
- **Medium-Sized Vocabulary:** Up to 4000 words active vocabulary.

ANSR™ Components

These components and their relationships are clarified and illustrated in our latest ANSR™ white paper. Ask us for a copy.

- **sprecd recognition server**, runs as a daemon or service on a server awaiting audio from clients.
- **sprecc recognition client**, sends audio and grammar selection to the server. This native client library is only 288Kbytes, small enough for almost any device to communicate with ANSR™'s high-end, server-based speech recognition. A Java client applet, **sprexlet**, is available for platforms supported by Sun's Java plugin and JRE. A graphical client application, **face**, configurable for a variety of end-user applications by the developer, is available for Windows CE (Pocket PC 2002, 2003) and Windows XP/2000.
- **grammar specification language** (BNF with rule-associated actions).
- **gxc grammar/action compiler** for generating:
 - word-lattices used by the speech recognizer.
 - the software **agent** to carry out actions associated with the recognition result. Actions are logged via **ddd**.
- **Acoustic models** and a large pronunciation dictionary. Supports 16kHz sample rate for US English, UK English, Spanish, Japanese, and German. Telephony applications (8kHz sample rate) for US English are also supported.
- Includes and extends Entropic HAPI MVX 2.1 library. HTK™ model compatible.
- **audiocat** for audio playback and recording (requires OSS audio drivers),
- **Platforms:** Linux™, Windows XP™, and Windows CE™ (client) available. Windows 2000™, FreeBSD™, and Solaris™ available by request.

Sprex Inc. Corporate Overview

Sprex, Inc. provides speech recognition and synthesis products and services for over-the-phone and over-the-internet applications.

Sprex, Inc. was founded in August, 1995 as a privately held California Corporation by its CEO, Dr. Tom Veatch, a former Stanford professor and expert in speech science and technology. After relocating to Seattle in

1998, Sprex' staff has grown to include 3 Ph.D.'s and a number of experienced technology industry veterans.

Sprex Products and Services

- **TallyGram™** – ANSR-based end-user applications and demonstration programs for voice based tallying of observations and sequences of events. For Tennis, Baseball, Hockey, *etc.*
- **ANSR™** – Action oriented, Network distributed Speech Recognition, providing the ability for developers to deploy network distributed task oriented spoken dialog systems to access and control any product or service by voice through the internet.
- **SprexOut™** – High-quality, fixed-format, custom speech synthesis for Public Address systems, telephone dialogs and speech applications.
- **Lip Synch Machine™** – high-accuracy text to audio synchronization for lip-movement timing in animation and for text-based indexing and random access to audio and audio/video databases applications. Used in production by major studios.
- **Teachionary™** – a web-based interactive program that teaches basic vocabulary words in a variety of languages. Efficiently learn basic vocabulary for Iraqi Arabic, Czech, Persian, Malayalam, Korean, Cantonese, English, German, Hebrew, Japanese, Pashto, Quebecois, Russian, Spanish, Tamil, Turkish, Urdu/Hindi and Uzbek. Teachionary's thematic word grouping, audio feedback, and interactive word games make learning vocabulary fun, fast, and effective, using any Java-enabled PC with a Web connection.
- **SprexPass™** – automatic generator of highly random yet English-like passwords that are strong (hard to break) but friendly (easy to remember), for use locally or across the network. Customizable for the highest security.
- **Consulting services** in speech technology and related applications are available under special arrangement.

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