

# Active Voice<sup>®</sup> **SPEAK**

Speech-Enabled Auto Attendant

## General Description



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### **Active Voice SPEAK General Description**

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## **PREFACE**

Active Voice SPEAK is a speech-enabled auto attendant system that incorporates the latest innovations in speech technology. It provides a personalized front-end speech-based interface to greet and route callers, as well as manage internal calls such as employee-to-employee or employee-to-department. SPEAK empowers subscribers to access their e-mail and calendar with spoken commands. Unlike touch-tone driven menus, SPEAK handles complex menu options without forcing callers to listen to a long list of choices, pushing buttons, and virtually eliminates dial-by-name and zero-out frustration.

This document presents SPEAK as an important module to any unified communication solution for small and mid-sized business as well as enterprises. SPEAK is an application that rapidly reduces costs and generates enhanced returns on new or existing telephony infrastructure investments.

## **ABOUT ACTIVE VOICE**

Active Voice is a wholly owned subsidiary of NEC, and provides innovative communication solutions backed by the stability and infrastructure of one of the worlds largest and most respected technology companies. Active Voice, LLC is a global leader in Unified Messaging, Unified Communication and speech enabled solutions. Our products empower people to communicate and manage information with convenience and efficiency; allowing virtually any communication device to access and control their messages, data and real-time communications in a single interface. With over 200,000 systems sold in more than 60 countries, Active Voice products fit into a wide variety of business environments across a broad range of industry sectors.

By developing sophisticated technology that is easy to use and can be customized to fit any work environment, Active Voice delivers solutions that meet the needs of its customers. Unlike other proprietary systems that work with a specific telephone system; our products integrate with a variety of popular telephone systems, and are based on open industry standards.

Active Voice products are sold and supported through a global network of independent telecommunications dealers, telephone equipment manufacturers, and computer resellers. Our solutions are deployed in a variety of industries, including government, manufacturing, healthcare, hospitality, education, and financial services. Technical and sales support for Active Voice products are provided from our world headquarters in Seattle, Washington, with global offices in Australia and the Netherlands.

At Active Voice, we understand our customers and what they want from a communications solution. That is why we have always designed products that work the way they do. Active Voice products are easy to use, easy to deploy, flexible, and customizable so people can work in the way that makes the most sense for them and their organization.

## **SYSTEM OVERVIEW**

### **SPEAK**

Active Voice SPEAK is an advanced and easily-deployable speech-enabled auto attendant, specifically designed to meet the needs for the small and mid-sized business environment, and still provides a scalable enterprise solution. All at a price point never thought possible in enterprise speech technology. Leveraging open standards and cutting-edge technologies, SPEAK integrates seamlessly into existing or new telephony infrastructures; whether it is IP or TDM, and offers enhanced capabilities designed to fulfill the promises of voice and data convergence.

### **SPEAK is Unique**

If you are part of a small to mid-sized business, you most likely have not had an adequate return on investment or resources needed to implement speech-driven applications that would benefit the organization. It would be great if you could just buy a box, plug it in, turn it on, and within minutes have a suite of productivity enhancing speech applications that you and your employees can use. Now you can!

Active Voice SPEAK provides a drop-in solution with pre-built applications that are ready to use, right out of the box. SPEAK is scalable from the needs of the small business, all the way up to the enterprise organizations and can handle thousands of subscribers at the same time.

### **SPEAK Improves Business Productivity**

- Upgrades your customer service and reduces “zero-out” calls.
- Eliminates the push button frustration as well as the need to search for numbers.
- Provides total 24/7/365 self-service information such as directories, company information, directions, and hours.
- Performs dynamic call routing to ensure all callers are treated in a personalized manner.
- Frees your front desk support to deal with important face-to-face matters that are key to your business.
- Keeps your mobile workforce efficiently connected and provides hands-free access.
- Reduces the need for maintaining and printing company directories.

## Features and Benefits of SPEAK

- SPEAK works seamlessly with your existing Voice and Data Infrastructure.
- SPEAK integrates with the existing PBX, Microsoft Exchange®, and Outlook® e-mail applications that you already have in place.
- SPEAK can be implemented in self-configuring mode.

Example of self-configuring mode:

After installing SPEAK hardware and turning it on,

1. Administrator configures the IP-PBX to route inbound calls to SPEAK, enters SIP, LDAP/Active Directory, and MS Exchange server addresses.
  2. SPEAK automatically populates its internal user directory, registers with the SIP server, and customizes the speech applications.
  3. Installation complete.
- SPEAK out-of-the-box applications include:

### **Auto Attendant for call routing of external callers**

Example: to reach Rob Gordon, when a person calls the SPEAK attendant the interaction will be:

- *SPEAK: "Thank you for calling ABC Company, please say the full name of the person or department you wish to reach."*
- *Caller says, "Rob Gordon."*
- *SPEAK says, "Rob Gordon, One moment please."*
- *And then transfers the call.*

Note: You can say **"cancel"**, **"no"**, or speak **another name** during the confirmation prompt to stop the call from being transferred.

### **Corporate Directory access for external, internal, and mobile users**

Example, to reach Rob Gordon's cellular, when a person calls the SPEAK attendant the interaction will be:

- *SPEAK: "Thank you for calling ABC Company, please say the full name of the person or department you wish to reach."*
- *Caller says, "Rob Gordon's cellular."*
- *SPEAK says, "Rob Gordon's cellular, One moment please."*
- *And then transfers the call to Rob's cellular number.*

## E-mail and Calendar access for mobile users

Example: of E-mail and/or Calendar Option

- *You say, "Read e-mail" or "Check calendar."*
  - *SPEAK says, "Please say your username."*
  - *You say your full name or nickname that has been entered in your user preferences.*
  - *SPEAK says, "Please enter your pass code."*
  - *Use the phone keypad to enter your numeric PIN set in your user preferences.*
  - *SPEAK says, "Login successful..."*
  - *SPEAK informs you of unread e-mails or upcoming appointments, and use its text-to-speech capabilities to navigate your e-mails, scheduled appointments, and meeting requests.*
  - *The main commands that you will use to navigate between e-mails are: "Repeat", "Get next", "Go back", "Main menu", "Help", and a few synonyms including "Next", "Skip", "Previous" and "Rewind".*
- SPEAK is reliable - Can be deployed in distributed symmetric-failover configuration to ensure "five 9s" (99.999%) availability
  - Embedded system design methodologies and distributed resource management are incorporated to ensure no "dead" or "hung" calls due to hardware or software failures.
  - An evenly distributed load between all computing resources optimizes overall system performance. Make this bulleted as well.

Active Voice SPEAK is the speech-enabled auto attendant your small and mid-sized business has been waiting for. Improve your customer service by implementing the easy-to-deploy, easy-to-use, tool that reliably routes your calls while freeing your staff to focus on more important tasks.

**SPEAK, it's that easy!**

## COMPATIBILITY

SPEAK provides the latest in industry standards and provides the latest integrations. With the capacity to integrate with existing or new TDM or IP PBX equipment, SPEAK provides the best solution available and protects your infrastructure investments.

## SPEAK Specifications

**Software Specifications** – SPEAK utilizes Linux operating system.

Version	Base Ports	Maximum Ports	Maximum Entries	Supported Platform	Text to Speech Engine
Standard	4	4	250	Level 1 & Level 2	Standard
Pro	4	24	500	Level 1 & Level 2	Enhanced
Enhanced	4	24	7,500	Level 2	Enhanced

\* E-mail and Calendaring Option is available on all versions and includes Enhanced Text-To-Speech upgrade for the Standard Version.

## Hardware Specifications

Version	Ports	Entries	RAM Required	Supported Platform	Integration		
					SIP	Analog	T1
Standard	4	250	1 GB	Level 1 & Level 2	4 ports	4 ports	4 ports
Pro	4-16	500	1 GB	Level 1	Up to 16 ports	Up to 8 ports	Up to 16 ports
Pro	4-24	500	1 GB	Level 2	Up to 24 ports	Up to 24 ports	Up to 24 ports
Enhanced	4-24	7,500	4 GB	Level 2	Up to 24 ports	Up to 24 ports	Up to 24 ports

## Supported Integrations

<b>Manufacturer</b>	<b>Analog</b>	<b>T1</b>	<b>SIP</b>
Avaya	✓	✓	✓
Cisco			*
Nortel Networks	✓	✓	*
Mitel Networks	✓	✓	✓
NEC	✓		✓
Shoretel			✓
Toshiba	✓	✓	*
Most others	✓	✓	✓

\* Undergoing final qualification process as of March 2008.

## Customer Site - Software Requirements

- Microsoft Exchange Server 2000<sup>®</sup> or higher (preferably 2003) domain controller for user directory import using LDAP. (Optional)
- Microsoft Exchange 2000<sup>®</sup> or higher (preferably 2003) with WebDAV enabled for e-mail and calendaring. (Optional)
- Administration - PC with Microsoft Internet Explorer<sup>®</sup> (recommended) or Firefox.

## **BENEFITS**

- **SPEAK improves business productivity**

Active Voice SPEAK reduces the duration of the average customer call; reduces the amount of “zero out” calls; frees front desk support to deal with important face-to-face matters; and reduces the need to maintain and print company directories.

- **SPEAK provides consistent customer service 24/7/365**

Active Voice SPEAK performs dynamic call routing to ensure all incoming call as well as internal transfers are treated in a personalized, professional and highly accurate manner. SPEAK gives all callers around-the-clock, self-service access to important information such as employee and department directories, company information, driving directions, and business hours.

- **SPEAK allows safe, convenient mobile access for employees and customers**

Active Voice SPEAK keeps mobile callers safely and efficiently connected, providing hands-free access to the person or information needed while on the go. SPEAK eliminates push-button frustration as well as the need to remember or search for extension numbers.

- **SPEAK helps mobile users communicate better**

Active Voice SPEAK helps out-of-office users stay connected with highly advanced optional features such as an Enhanced Text-To-Speech engine, mobile e-mail access, and sophisticated calendaring to review upcoming appointments with accept and decline meeting options.

- **SPEAK offers quick and easy deployment**

Active Voice SPEAK integrates seamlessly with your existing PBX and messaging infrastructure, and is ready to use in under an hour.

- **SPEAK lowers overall business costs**

Eliminate costs of phone directories. Businesses no longer need to spend valuable resources on updating and publishing lengthy company directories when using SPEAK. The names and telephone numbers of employees are stored within a database, which can be imported from and regularly synchronized with a standard CSV file or LDAP-compatible directory, such as Microsoft Exchange®.

Utilize valuable operator time. Employees often rely on the telephone operator to transfer their calls. Internal calls increase the workload and disrupt the operator’s real job of helping customers. The system diverts internal and inbound calls away from live operators, who are then available for more value-added tasks.

Calls answered 24/7, 365 days a year. Providing company information is a critical task. Callers get answers to frequently asked questions, such as directions and office hours, without taking up valuable operator time through the use of audio text boxes.

## **SPEAK KEY FEATURES**

SPEAK offers many powerful features to facilitate the ease of transferring to an internal or external number, corporate directory access, and accessing individual subscribers e-mail and calendar using the caller's own voice.

- **High-performance ASR Technology**

LumenVox Speech Engine is an accurate, standards-based speech recognizer that supports multiple languages and can perform speech recognition on audio data from any audio source.

- **Dictionary and Grammar**

At the heart of SPEAK is the grammar, the list that defines which words a speech application can recognize. Grammar influences, and is influenced by, many other facets of a speech application, including prompts, menu choices, and the overall call flow.

- **Phone Directory**

The SPEAK phone directory is capable of supporting a large directory of entries. It contains all the subscribers in your organization. There are three different types of entries: name, department, and commands. A single entry can contain an alias and/or a nickname.

- **Standard Text-To-Speech (TTS)**

SPEAK uses standard text-to-speech to generate temporary digital audio files for each new phone directory entry, system prompts, greetings, and audio text that have not been recorded by a human voice. SPEAK also offers the optional NeoSpeech text-to-speech module for a more natural sounding voice.

- **Speaker Independence**

SPEAK does not need to be trained to the speech patterns of callers. It recognizes virtually any accent or voice tone.

- **Continuous Speech Recognition**

SPEAK lets callers speak naturally as they do in a normal conversation, elevating the caller experience, and system performance. This ease of use and friendly interaction with the system results in increased caller satisfaction and immediate adoption and acceptance of the system.

- **Barge-in**

This feature allows experienced callers to save time by speaking over SPEAK greetings and prompts.

## ■ DTMF Compatibility

SPEAK routes calls on voice command, but it can also do so on DTMF command. Enabling callers to make their request verbally or dial the extension of the person they want to reach.

## ■ Alternate Names

SPEAK allows the system administrator to define alternate names (nickname and/or aliases) for users. The "Aliases and Alternate Pronunciations" table gives you the opportunity to add an alias, nickname, or alternate pronunciation for a name that can be difficult to pronounce. Using an alias in this way can improve the SPEAK's recognition of your name, and also pronounce it more accurately to inbound callers.

## ■ E-mail and Calendaring Options

SPEAK has an optional module that allows subscribers the ability to access their e-mails and calendar with spoken commands.

For example, if you are Rob Gordon and your PIN is 123:

- *Call the company phone number.*
- *When the call is answered, say "Read e-mail."*
- *SPEAK replies, "Please say your user name."*
- *Say, "Rob Gordon."*
- *SPEAK replies, "Please enter your pass code."*
- *Use the phone keypad to enter: 1-2-3.*
- *SPEAK replies, "Login successful..."*

SPEAK checks to see how many unread e-mails you have in your in-box and/or when your next appointment begins. SPEAK uses its text-to-speech capabilities to read to your e-mails, scheduled appointments, and meeting requests.

If you do accept or decline a meeting request, an automated e-mail confirmation is sent to whoever sent the meeting request. The meeting is also added to your calendar.

The main commands used to navigate between e-mails are: "**Repeat**", "**Get next**", "**Go back**", "**Main menu**"(\*), "**Help**", and a few synonyms including "**Next**", "**Skip**", "**Previous**" and "**Rewind**".

## **MAINTENANCE**

SPEAK is designed to be as easy to maintain. All system hardware requires minimal maintenance. Software maintenance is designed to be virtually foolproof. Most of the system administrative tasks can be performed using the SPEAK Administration window. In addition, remote administration is possible using Web Admin.

SPEAK can provide a great deal of information regarding incoming telephone calls and transfer rate. The information is generated in reports and can be used to help make decisions about the organization, such as staffing levels, productivity, and telephone equipment needs. Reports can be viewed on the screen or printed. Reports can also be copied to files and imported into many word processing, database, and spreadsheet programs.

### **System Reporting and Logs**

#### **Reporting**

- Includes usage data (total number of calls, call transferred, number of e-mail/calendaring sessions) and error conditions (number of unrecognized utterances, number of transfers to an operator, e-mail/calendar login failures).
- Daily usage reports can be configured to be e-mailed to an administrator.
- Information can be used to determine if tuning or examination of logs/audio is necessary.

#### **Logs**

- Daily logs of key system components are created.
- Audio recording can be enabled. Call recording can be turned on to record a caller's speech transaction. The audio is recorded in 8k 8bit mu-law wav files, one for the entire call and one for each detected utterance.