



## WebSphere Voice Server speaker verification

Enhancing Security for Telephone Based applications

When it comes to providing secure access for self-service, telephone-based applications, most solutions rely on information that is easily accessible and compromised, leading to higher exposure for fraudulent use.

### How do we secure our telephone-based applications?

IBM offers speaker verification that enables a non-intrusive and highly accurate mechanism for authenticating users based on the analysis of their voice. Speaker verification provides more accurate and secure access to telephone self service applications. It has the ability to authenticate someone based on their voice. It significantly reduces the risks of unauthorized access using the unique features of one's voiceprint.

#### Authenticating in a VoiceXML application

Speaker verification is an optional component of WebSphere Voice Server. This component enables a VoiceXML based telephone self service application (running on any Web application server) to accept speech and match it against an enrolled voiceprint for caller authentication.

#### Protecting you and your customers

Identity theft is the number one crime in USA and Europe today and growing worldwide. Speaker verification instills confidence in customers as to the security of their data. The ability to use one's voice for authentication adds an additional layer of protection to sensitive information.

For example, if a user's account ID and password are stolen, the imposter will be detected by the system when he tries to access account specific information while pretending to be someone else. The use of voiceprints increases the reliability of identity verification and makes it much more difficult for someone to break into a user's account.



#### Speaker Verification Technology

WebSphere Voice Server speaker verification technology provides a language, and text independent authentication mechanism. You can enroll saying anything, in any language, and have it verify you, saying anything, in any language!

Some of the benefits of IBM speaker verification include:

- ◆ Language Independence
  - One speaker verification engine can handle all languages;
  - Speaker can enroll in one language and be verified in another.
- ◆ Text Independence
  - User can say anything, not bound by a grammar or a pre-defined pass phrase.
- ◆ Speaker Tracking
  - Continuously monitor entire calls for assurance that the verified speaker answered all prompts.
- ◆ Speaker Change Detection
  - Can alert when a different speaker is detected in call (For example, a person calls in but then a friend takes over the conversation).

Since anything you say as part of a transaction dialog can be used to verify your identity, there is no need to remember passphrases or go through a separate verification process. For instance, you can prompt for an account number, have it recognized and the caller verified through the same dialog.

IBM has over 60 patents and 30 papers associated to its speaker verification technology, including a patent selected as one of Five Killer Patents by the MIT Technology Review Magazine (May/2004 issue).

"IBM has one of the longest standing commitments to "conversational verification," having demonstrated multiple ways to use speech processing, application processing and speaker verification resources to streamline identity verification over the telephone. In this respect, the new feature packs for WebSphere are the culmination of decades of investment in speaker verification. What's more, because WVS SIV is always instantiated on a WebSphere Application Server (WAS), it is part of a family of software with over 87,000 users around the world and includes pre-packaged resources for load balancing, redundancy and resilience. For the purpose of monitoring, performance indicators for application servers, Web servers and voice servers can be observed through the same WAS based console." says Dan Miller, OPUS Research, **IBM Makes Speaker Identity Verification Part of WebSphere**, July 31, 2007

### Supporting Standards

WebSphere Voice Server speaker verification is comprised of Java services, and leverages the highly scalable and robust WebSphere Application Server's Java 2 Enterprise Edition (J2EE) services. It brings all the WebSphere Application Server benefits to speaker verification, including:

- reduced deployment costs with integration into the IT infrastructure;
- central and common management;
- advanced system monitoring;
- increased reliability;
- simplified problem determination.

IBM continues its commitment to standards with J2EE, Media Resource Control Protocol (MRCP), and the World Wide Web Consortium (W3C) Speech Interface Framework.

The use of open standards has proven to be a driving force towards lowering solutions costs. WebSphere Voice Server confirms IBM's commitment to support, adopt, and drive open standards. It ties together more than 35 years of

worldwide speech research and technology expertise with the infrastructure provided by IBM WebSphere Application Server.

Along with MRCP, WebSphere Voice Server supports the W3C Speech Interface Framework of standards, including voice grammars (SRGS), and speech markup (SSML).



### For more information

To learn more, contact your IBM representative or IBM Business Partner, or visit: [ibm.com/speech](http://ibm.com/speech)

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