Phonexia Speech Engine

Speech and Voice Biometrics Technologies for Business Solutions
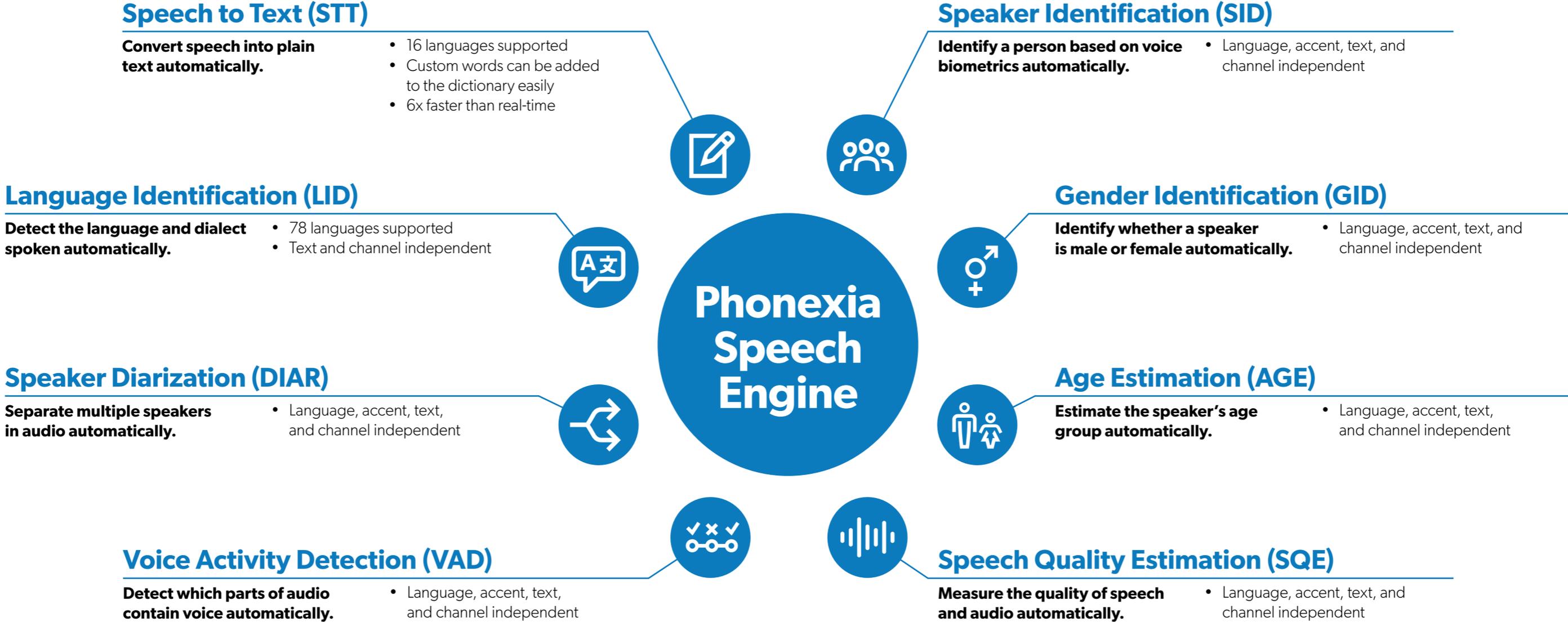
Solving Everyday Challenges Through Voice

PHONEXIA

Build innovative business solutions with Phonexia Speech Engine's state-of-the-art voice biometrics and speech technologies.

PHONEXIA

Phonexia Technologies

Speech to Text (STT)

Convert speech into plain text automatically.

- 16 languages supported
- Custom words can be added to the dictionary easily
- 6x faster than real-time

Speaker Identification (SID)

Identify a person based on voice biometrics automatically.

- Language, accent, text, and channel independent

Language Identification (LID)

Detect the language and dialect spoken automatically.

- 78 languages supported
- Text and channel independent

Gender Identification (GID)

Identify whether a speaker is male or female automatically.

- Language, accent, text, and channel independent

Phonexia Speech Engine

Speaker Diarization (DIAR)

Separate multiple speakers in audio automatically.

- Language, accent, text, and channel independent

Age Estimation (AGE)

Estimate the speaker's age group automatically.

- Language, accent, text, and channel independent

Voice Activity Detection (VAD)

Detect which parts of audio contain voice automatically.

- Language, accent, text, and channel independent

Speech Quality Estimation (SQE)

Measure the quality of speech and audio automatically.

- Language, accent, text, and channel independent

Typical Use Cases

Speech Analytics

Perform comprehensive and highly complex content analysis of speech. Uncover demographic information about a speaker (including their age, gender, language, and dialect), track the interactions between a client and a contact center's agent and detect cross-talking, silent spots, call topics, and other important business insights automatically.
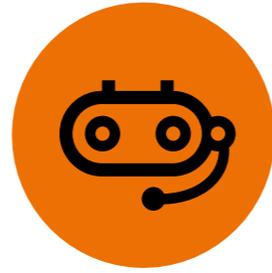
Voicebot Enabler

Provide customers with a frictionless customer experience powered by Phonexia's cutting-edge voice biometrics and speech technologies. Integrate Phonexia technologies into voice-enabled solutions and transform ordinary IVRs into smart IVRs, secure voicebot solutions with voice verification, and offer seamless self-service over the phone.

Precise Finetuning

Language Model Customization

Phonexia Speech Engine comes with a built-in dictionary for custom words, which can be easily used to improve Speech to Text accuracy by adding the words not included in the default dictionary such as product names, dialect-specific words, slang phrases, and others. It can also be used to add alternative pronunciations of the words already present in the dictionary to accommodate local and dialect specifics.

Preferred Phrases

Phonexia Speech Engine enables the defining of an unlimited number of single- or multi-word phrases expected to appear during speech. Such words are then favored over similarly sounding words or phrases, greatly improving the Speech to Text accuracy. It is particularly useful for voicebot scenarios, where specific words and phrases are preferred in the speech transcription of an answer to a particular question.

Integration Possibilities

• Interface

Phonexia's cutting-edge speech and voice biometrics technologies are powered by **Phonexia Speech Engine,** which is distributed as a **RESTful** server application.

• Evaluation

Phonexia Speech Engine's technologies can be quickly evaluated using a rich-GUI Phonexia application and an evaluation license.

• Deployment

Phonexia Speech Engine can be deployed on premises or in a virtualized environment.

• Recommended Hardware

For production deployment, a 64-bit server processor is recommended with a higher L3 cache (the higher, the better). For example, the Intel® Xeon® processors E5/E7/Gold/Platinum or Intel® Core™ processors i5/i7/i9.

Hardware configuration depends on the use case scenario. Phonexia provides advanced consultation upon a request.

intel
MARKET READY

License Distribution Options

- **HW profile licensing key**
  On-premises installation

- **Licensing server**
  On-premises or cloud-based installation

- **NET-based license**
  For evaluation and testing purposes

Input Formats

- **WAV or RAW**
  (PCM 8 or 16 bits, IEEE float 32-bit, A-law or Mu-law, ADPCM)

- **FLAC**

- **OPUS**

- **8 kHz+ sampling frequency**
  (other audio formats are automatically converted)

Supported OS

- **Windows 64-bit (x86_64)**

- **Linux 64-bit (x86_64)**

Supported Languages

Speech to Text

LANGUAGES
Arabic (Gulf)
Arabic (Levantine)
Croatian
Czech
Dutch
English (US)
Farsi
French
Pashto
Polish
Russian
Slovak
Spanish
Swedish
Turkish
Vietnamese

Language Identification

LANGUAGES	
Albanian	Kazakh
Amharic	Khmer
Arabic_Egypt	Kirundi_Kinyarwanda
Arabic_Gulf	Korean
Arabic_Iraqi	Kurdish
Arabic_Levantine	Lao
Arabic_Maghrebi	Lithuanian
Arabic_MSA	Luxembourgish
Assamese	Macedonian
Azerbaijani	Ndebele
Bangla_Bengali	Oromo
Belarusian	Pashto
Bulgarian	Polish
Burmese	Portuguese
Cebuano	Punjabi
Chinese_Cantonese	Romanian
Chinese_Mandarin	Russian
Chinese_Min_Nan	Serbo-Croat-Bosnian
Chinese_Wu	Shona
Chuvash	Slovak
Czech	Slovenian
Dari	Somali
Dutch	Spanish_American
English_American	Spanish_European
English_British	Swahili
English_Indian	Swedish
Farsi	Tagalog
French	Tamil
Georgian	Telugu
German	Thai
Greek	Tibetan
Guarani	Tigrignya
Haitian_Creole	Tok_Pisin
Hausa	Turkish
Hindi	Ukrainian
Hungarian	Urdu
Indonesian	Uzbek
Italian	Vietnamese
Japanese	Zulu

Have you not found a desired language or dialect?

Contact your Area Sales Manager for a product roadmap and the terms for a project-based, new language model development.

About Phonexia

Founded in 2006, Phonexia is a Czech innovative software company with a vision to solve the world's everyday challenges through voice. Closely cooperating with the Brno University of Technology, Phonexia *has been transforming the latest science into the everyday reality of cutting-edge voice biometrics and speech technologies used by commercial and governmental projects in more than 60 countries.*

Phonexia Clients and Partners

ŠKODA   O2   Ministry of Defence of the Czech Republic   innogy

AIRBUS   sas   RETIA   NTT

Comdata Group   SOITRON   TOVEK   HOME CREDIT

And many more…

Why Phonexia?

World-Class Technology

Phonexia has a close relationship with a **NIST-renowned** speech research group at the **Brno University of Technology**, with immediate access to the latest scientific breakthroughs.

Support that Cares

Phonexia support is not about solution-evading emails—our European-based team of experts always tackles any challenge you throw at them, as **we care about your success**.

Worldwide Projects

Phonexia speech recognition and voice biometrics technologies have been used in a huge variety of commercial and governmental **projects in more than 60 countries**.

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