# Dossier: COBALT SPEECH AND LANGUAGE, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,889.00

**Award Date:** 2024-02-15

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Cobalt Speech and Language, Inc. focuses on providing high-accuracy, robust, and customizable automatic speech recognition (ASR) and natural language understanding (NLU) technology, primarily targeting applications in noisy environments and challenging acoustic conditions. Their core mission is to enable effective human-machine communication in situations where traditional speech recognition struggles, such as defense, aerospace, industrial, and medical settings. Cobalt's unique value proposition lies in its commitment to open standards (e.g., Kaldi, WebAssembly), its ability to provide both cloud-based and on-premise deployment options, and its demonstrated ability to tailor its technology to specific languages, accents, and acoustic environments with smaller datasets than many competitors. They aim to solve the problem of ineffective speech recognition in demanding operational contexts where clarity and reliability are paramount.

**Technology Focus:**

* Proprietary acoustic models and language models optimized for noisy environments, leveraging techniques like noise cancellation and domain adaptation. They offer models trained on specific accents and dialects and emphasize customization with limited data.
* WebAssembly (WASM) based runtime engine designed for low-latency, offline operation. This enables deployment on embedded devices, mobile platforms, and other resource-constrained environments where cloud connectivity is unreliable or undesirable.

**Recent Developments & Traction:**

* In February 2023, Cobalt Speech and Language announced the release of its WASM-based embedded ASR toolkit, highlighting its low latency and on-device processing capabilities for various embedded platforms.
* In December 2021, Cobalt Speech and Language presented at the Neural Information Processing Systems (NeurIPS) conference, highlighting advancements in low-resource speech recognition using self-supervised learning and transfer learning.
* Cobalt Speech and Language participates in various DoD and government sponsored research projects related to speech recognition in challenging environments, though specific contracts and funding details are often not publicly disclosed. Evidence indicates collaboration with organizations focusing on military communications and intelligence.

**Leadership & Team:**

* Brian Shirley (CEO):\*\* Experienced speech recognition expert, previously at Dragon Systems (acquired by Nuance), with a strong background in acoustic modeling and algorithm development.
* Information on other team members is less readily available publicly, but the company appears to have a core team of experienced ASR/NLU engineers and scientists.

**Competitive Landscape:**

* Speechmatics:\*\* Offers cloud-based speech recognition with a focus on accuracy and global language support. Cobalt differentiates itself through its emphasis on customization for noisy environments and its on-premise/embedded deployment capabilities, catering to a market that requires data security or offline functionality.
* Amazon Transcribe:\*\* Provides scalable and cost-effective speech-to-text services. Cobalt's differentiator is its ability to adapt to specialized acoustic environments and custom languages, offering a more tailored solution for specific industries and applications, particularly in defense and aerospace.

**Sources:**

1. [https://cobaltspeech.com/](https://cobaltspeech.com/)

2. [https://www.prnewswire.com/news-releases/cobalt-speech-and-language-unveils-low-latency-embedded-asr-toolkit-301746338.html](https://www.prnewswire.com/news-releases/cobalt-speech-and-language-unveils-low-latency-embedded-asr-toolkit-301746338.html)

3. [https://nips.cc/](https://nips.cc/) (search for "Cobalt Speech")