Solution Brief



Banking/Financial Services, Health and Life Sciences, Government, Education

CABOLO® One for Offline Meeting Recording, Notes and Archiving

Using Intel-powered ASUS NUC AI mini PC, CABOLO One provides offline meeting recording, transcription, translation, archiving, summarization, context analysis, and maintains data sovereignty for meeting recordings



The market for automatic speech recognition (ASR) services—particularly in transcription, translation, indexing, and archiving—is undergoing rapid growth and evolution, driven by advancements in AI, expanding organizational needs, and growing regulatory and security requirements.

The explosion of audio / video content from virtual meetings, podcasts, and customer service recordings, among others, is an important contributor to an increase in demand because all this content must be transcribed and, in many cases, translated into other languages.



Many popular ASR services use the cloud for the compute power needed for these services. But a lack of data sovereignty and a few other issues with cloud-based translation is propelling the need for offline ASR solutions.



Many organizations have privacy and data security reasons for wanting to keep ASR models and data on the premises. For some regulated industries there are more defined data sovereignty laws they must maintain so that the data never leaves the country which could be the case if a public cloud service is used.

On-premises ASR is important for real-time applications such as live translation where the need for a fast response is critical. Cloud-based ASR will often have a cloud inference lag which is the time the data takes transiting back and forth from the cloud to a customer's premises.

With a local server, an organization can more easily adopt customized or fine-tuned language models that are trained on proprietary data and jargon which boosts accuracy dramatically. This customization capability is ideal for security, law enforcement, military, and government operations.

CABOLO® offers an offline Al-powered device using the ASUS NUC Al mini PC to provide the small footprint computer with the Al compute power needed to support real-time transcription and translation of multiple languages as well as note taking, summarization, and indexed archiving. ASUS is an Intel® Industry Solutions Builders Partner.

CABOLO One is a Portable, Offline Meeting Recording and Multilingual Note Taking Solution

CABOLO One is a private AI-powered device that offers completely offline recording, transcribing, translating, indexing, encrypting, applying digital signatures and archiving speech in real time.

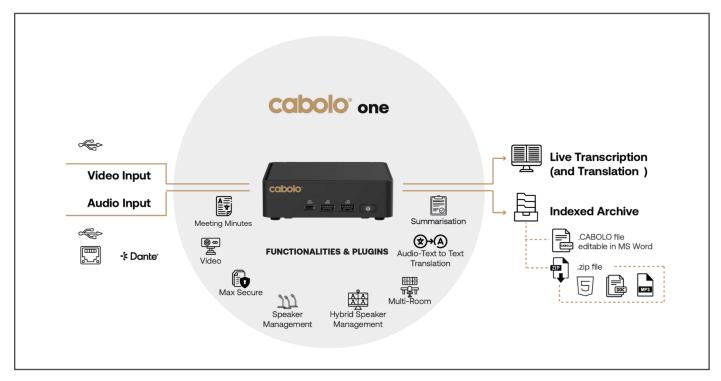


Figure 1. Block diagram shows how CABOLO One processes audio data.

As seen in Figure 1, the system processes audio input first identifying the language before transcribing and then translating the audio.

CABOLO One supports transcription in more than 45 languages and automated translation in more than 60 languages, ensuring a high level of accuracy for a multilingual audience.

Using Dante integration, the system works with leading professional audio-video systems, monitoring each microphone to offer speaker recognition for accurate identification of individual speakers. For customization and integration, CABOLO One offers APIs. The solution is already customized for enterprises, banking, education, government agencies, law enforcement and professional services customers.

Al Processing in Small Form Factor

The hardware for the CABOLO One device is an ASUS NUC AI mini PC. Equipped with Intel® Core™ Ultra (series 2) processors, the ASUS NUC AI mini PC is optimized for Alpowered workloads, enabling complex ASR and translation tasks in real time.

The AI PC balances processing power, thermal efficiency, and upgrade flexibility in an ultra-compact 144 mm × 112 mm × 42 mm (4" x 4" by 2") form factor.

The device supports up to 96 GB of high-speed DDR5-6400 memory and features dual M.2 2280 NVMe PCIe Gen4 \times 4 slots, enabling storage capacities up to 4 TB.



Figure 2. Front view of CABOLO One device.

High-Speed Connectivity and Advanced Thermal Engineering

Designed with comprehensive I/O support, the ASUS NUC AI mini PC includes two HDMI 2.1 ports, two Thunderbolt 4 / USB 4 ports with DisplayPort 2.1 support, and a 2.5 Gb Ethernet port. CABOLO One uses a variety of connections for audio input from the conferencing system.

The CABOLO system is completely wireless and Internet free. The only time Wi-Fi connectivity is activated is when customers prefer to use a Wi-Fi hot spot to connect to the device UI, instead of connecting via the local network.

The AI mini PC family features robust cybersecurity measures with AES-256 encryption and SSL/TLS certifications to ensure data protection in high-risk environments. This enhanced security allows CABOLO One to be secure and offer GDPR compliance.

The system is engineered with an enhanced cooling architecture that provides significantly quieter operation than previous models while supporting CPUs with thermal design power up to 65 watts.

Al Compute Power from Intel

The heart of the ASUS NUC AIPC is the Intel Core Ultra processor lineup. These devices feature hybrid compute capabilities including a multi-core CPU, integrated Intel® Arc^{TM} graphics and a dedicated Neural Processing Unit (NPU) capable of delivering up to 99 TOPS of AI inference performance.

The CABOLO One software gets its AI performance from the NPU which features Intel® AI Boost acceleration features for delivering real-time edge AI performance with low power consumption.

For power-efficient performance, Intel Core Ultra processor family features a novel architecture that combines performance-cores (P-cores) and power efficient-cores (E-cores), delivering optimal performance and energy efficiency for best possible user experience.

This results in a low thermal design power (TDP) in addition to the power savings from the integrated GPU that replaces a high-power discrete GPU whose TDP is additive. The power efficiency is important for battery-operated ASR applications.

Conclusion

The CABOLO One private-AI powered device is designed to deliver secure, offline recording, transcription, translation, summarization, and archiving services for organizations that need privacy, data sovereignty and data security. The device uses CABOLO's AI software running on the ASUS NUC AI mini PC which is optimized for AI applications thanks to its use of the Intel Core Ultra processor family. With a CPU, GPU and NPU, the hybrid Intel Core Ultra processor gives the CABOLO One the performance it needs for large scale multilanguage use cases without the need for the cloud.

Learn More

CABOLO® Homepage

CABOLO® One

ASUS NUC Al Mini PC

Intel® Core™ Ultra Processors (Series 2)

Intel® Industry Solutions Builders Partner



¹https://www.asus.com/displays-desktops/nucs/nuc-mini-pcs/asus-nuc-15-pro-plus/ © 2025 Intel Corporation

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