

Latent Linguist

Real-time language translation
without the cloud

Whether on patrol, in an embassy interview room or at a border-control checkpoint, operators must communicate instantly and securely, even when disconnected from the internet. Latent Linguist delivers **AI-driven voice-to-voice and visual translation on any edge device**, enabling real-time human-level conversation with no data ever leaving the premises. Traditional translation systems, which often need cloud access or use everyday devices, can be slow, risky, and tricky to manage in challenging, disconnected environments.

Latent Linguist brings **AI-powered, continuous speech translation directly to the edge**. Built on years of research, development, and operational field testing, it delivers true, real-time speech-to-speech translation entirely offline on rugged, low-SWaP hardware — enabling natural, human-level conversation in disconnected environments.

KEY ADVANTAGES

No Cloud Required

Operates fully offline for DDIL or secure facilities — no latency, no data risk.

Real-Time, Continuous Speech

Two-way voice translation with near-zero lag and natural tone.

Multilingual and Expandable

Russian, Ukrainian, Mandarin (military vocab), Thai, Japanese, Spanish + 12 more in development.

Visual Translation

Translate printed documents, signage, or on-screen text using onboard camera.

Flexible Hardware Options

Wearable GPU, laptop module, or fixed desktop/room unit—choose what fits the mission.

Secure and Accreditable

Encrypted, watermark-protected models; compliant with DoD and U.S. Gov cyber requirements.

IDEAL USE ENVIRONMENTS

Defense & SOF Teams

On-the-move cross-force coordination

Border & Customs Agencies

Interview and screening rooms

Embassies & Consulates

Confidential interactions without cloud exposure

Humanitarian & Disaster Response

Rapid language bridging under austere comms

Coalition Operations

Partner-nation interoperability

AT A GLANCE

Connectivity

100% offline (air-gapped capable)

Form Factors

Wearable GPU unit • Rugged tablet • Edge box for interview room

Latency

< 250 ms average

Accuracy

Human-level conversation flow, tested in the field

Security

AES-256 encrypted runtimes, watermarked AI models

Compute Partners

NVIDIA Jetson™, NXP i.MX, Intel, Qualcomm, AMD Ryzen AI



DEPLOYMENT MODES

Portable Wearable

Shoulder-mounted or chest-rig GPU hub with headset

Desktop or Kiosk

Plug-and-play edge module for room interviews

Vehicle/Command Mount

Integrated with tactical compute nodes

Fixed Facility

Rack-mount edge server supporting multiple microphones

Each configuration runs the same optimized Latent Linguist model, allowing agencies to standardize software while selecting the right hardware footprint.

OPERATIONAL BENEFITS

Security

No transmission to external servers—classified and sensitive dialogue remains local.

Speed

AI inference on device delivers human-level conversation flow.

Scalability

Language packs and model updates deploy in minutes over secure local networks.

Interoperability

Open APIs enable integration with TAK, border-control systems, and embassy IT networks.

Cost Efficiency

Reduces reliance on contract linguists and training overhead.



AVAILABILITY

- **Prototype Evaluation Units:** Available FY25 for pilot deployment
- **Full System Integration:** Projected FY26 across DoD and U.S. Gov agencies
- **Commercial Versions:** Configurable for civil government and secure enterprise use

