BLUE RAPTOR



Speaker Speech-to-Text Identification -01000000000 **Speech Activity Detection** (\mathbf{l}) Machine Translation 110111000 10--14 Cómo estás? \checkmark Gender How are you? Identification Language Language 1 ւիվիրիիիսիրու Identification Language 2 Male Female abelinillentus Language 3 . . . - 88 -BLUE RAPTOR-XS

Enabling AI/ML-Powered Applications at the Edge

BLUE RAPTOR-M

BLUE RAPTOR-L

BLUE RAPTOR-S

BLUE RAPTOR helps provide forces operating at the edge with total situational awareness and cognitive dominance via state-of-the-art GOTS/COTS Human Language Technologies (HLT) such as Speech Activity Detection, Language Identification, Gender Identification, Speaker Identification, Speech-to-Text/Keyword Search and Machine Translation. Powered by Artificial Intelligence/Machine Learning (AI/ML), this capability is made possible by a COTS processing system developed with forces in mind. The small, lightweight, rugged and modular system is reliable and easy to use, offering low-power consumption in extreme, multi-domain environments.

BLUE RAPTOR

Mission Impact



Enables linguists/operators to fully leverage diverse, high-volume, fast-moving data



Maximizes probability of quickly finding

critical information

Key Points

- Developed in partnership with USG (including linguists/operators), SNC and Cubic I DTECH Labs
- Utilizes operationally proven Cubic I DTECH Labs M3-SE product line
- Class-leading performance in a low-power, compact, modular, multi-use, easily transportable solution
- Reliability in extreme environments; built to meet MIL-STD 810H and MIL-STD 461G requirements
- Includes 2-year extended hardware warranty
- Efforts to obtain Authorities to Operate (ATO) on classified networks are underway
- Utilizes state-of-the-art, operationally proven, untethered GOTS/COTS Human Language Technologies (HLT)
- Processes 1-240+ audio streams at the edge across 25+ languages in near-real-time
- AI/ML software architecture included (allows 3rd party AI/ML-powered apps to plug-and-play)
- HLTs integrated into lightweight, web-based user interfaces (e.g., Raptor-X, Rover, etc.)
- · Language models updated and deployed regularly



BLUE RAPTOR-XS BLUE RAPTOR-S BLUE RAPTOR-M BLUE RAPTOR-L Size: 10.63" H x 10.25" W x 5.06" D Size: 4.75" H x 10.25" W x 5.06" D Size: 7.0" H x 10.25" W x 5.06" D Size: 12.88" H x 10.25" W x 5.06" D Weight: 6.85 lbs Weiaht: 9.85 lbs Weiaht: 15.05 lbs Weight: 18.05 lbs Power (Initial/ Nominal/Max): Power (Initial/ Nominal/Max): Power (Initial/ Nominal/Max): Power (Initial/ Nominal/Max): 52.6W/76.4W/185.1W 84.5W/122.8W/306.8W 107.1W/159.3W/416.9W 129.8W/195.7W/527.1W Compute: 2x CPU (16C ARM64) Compute: 4x CPUs (32C ARM64) Compute: 6x CPUs (48C Compute: 8x CPUs (64C + 2x GPUs (1,024 Cuda Cores, + 4x GPUs (2,048 Cuda Cores, ARM64) + 6x GPUs (3.072 Cuda ARM64) + 8x GPUs (4,096 Cuda Cores, 512 Tensor Cores) 128 Tensor Cores) 256 Tensor Cores) Cores, 384 Tensor Cores) Al Performance: 22 TELOPS Al Performance: 44 TELOPS Al Performance: 66 TFLOPS Al Performance: 88 TELOPS FP16, 44 TFLOPS of INT8 FP16, 88 TFLOPS of INT8 FP16, 132 TFLOPS of INT8 FP16, 176 TFLOPS of INT8

Server: 17 Quad Core; 32GB RAM; 4TB storage (additional RAM/storage available)



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Optimizes utilization of limited resources (e.g., time, manpower, bandwidth, etc.)



Increases time available for force operators to think and act

Decreases time to produce and disseminate actionable intelligence

Automates time consuming

processing, exploitation

and analysis tasks