

Cachengo[®] Bento[™] Product Brief

Ultra-Compact Bento[™] Enables Real-time AI-driven Edge Analytics



Why it Matters?

Gartner predicts by 2025, 75% of enterprise data processing will take place at the edge. The Cachengo[®] Bento[™] solution delivers security, scale, economics and performance; enabling customers to be successful with edge computing deployments.

How it Works?

Unlike traditional vendors that depend on standard server architectures with added GPUs and storage components, our **Symbiote[®]** design offers an innovative integrated compute platform. Each unit functions as a standalone server and includes embedded processor cores, GPU/NPU cores, and flash storage—all within a compact 2.75" x 3.93" form factor.

Each Symbiote[®] can perform sophisticated neural networking functions locally, where data is stored, enabling real-time data analytics and insight; removing any limitations associated with traditional server architectures.

With a custom designed 10Gbps backplane, Bento[™] contains 8 Symbiote[®] bare metal servers, 64 ARM processor cores, 32 ARM Mali GPU cores, 8 NPU cores, and up to 128TB of flash storage that easily supports large edge data set analytics.

The Benefits

- **Scalable Architecture:** Delivers real-time data analytics with low latency.
- **Ultra-Compact and Power-Efficient:** Bento[™] solution is versatile enough to be deployed anywhere.
- **Enhanced Data Security and Governance:** Peer-to-peer network architecture, significantly enhances security, making data breaches virtually impossible.
- **Cost Efficiency:** Significant reductions in CAPEX (by 5X) and OPEX (by 4X) compared to traditional server architectures.
- **Simplified Management:** Cachengo[®] Knowhere[™] management portal streamlines the deployment, management of the Bento[™] solution.

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Bento[™] Specifications

- 8 independent Symbiote[®] bare metal servers
- 64 ARM Cores (RK3588)
- 8 NPU Cores (6 TOPS each)
- 32 GPU Cores - ARM Mali G610 MC4
- Storage: 2TB to 128TB
- 128GB DDR4 4224 MHz RAM
- Height: 1.96" (50mm), Width: 4.88" (124mm), Depth: 7.87" (200mm)
- Weight: 2.4 lbs (1.09 kg)
- 2 heavy duty fans
- Power consumption: 75W maximum, ~50W typical
- Cloud native and multi-cloud support
- Just-In-Time Data "Thin-provisioning"
- Native ML/AI Capabilities
- Erasure coding and replication data protection
- Enhanced SD-WAN connectivity

