Volterra Industrial Server

Overview

The Volterra Industrial Server is a series of ruggedized edge computing devices providing hyper-converged compute, GPU, storage and networking. They are easy to deploy and operate systems capable of running learning, inference, containerized or legacy (VM) workloads—from manufacturing plants to retail stores and small branch offices. Volterra Industrial Servers combine the capabilities of hyper-converged infrastructure (HCI) with a GPU for machine learning and robust connectivity (4G LTE/GPS/Wi-Fi/Bluetooth) in a single ruggedized device designed to meet the rigorous demands of edge and industrial environments.

Each server is managed through the cloud using Volterra's VoltConsole™ and natively runs VoltStack™ and VoltMesh™ to provide infrastructure services and end-end application lifecycle management from zero-touch provisioning to decommissioning. Multiple Volterra Industrial Servers can be clustered together in active-active mode to easily scale-out compute and storage capacity, making edge resources flexible and elastic without requiring additional infrastructure such as top-of-rack switches, routers and firewalls.

Highlights

- Intel Xeon D-2100 series processor
- Includes 3x10GE, 8x1GE Ethernet ports
- Ruggedized, with N+1 fan redundancy and a wide operating temperature range of 0°C to 55°C
- 2x 2.5" HDD/SSD storage drive bays
- Flexible M.2 slot for NVME SSD storage or an M.2 based neural network processor
- Multiple connectivity options - Ethernet, 11ac Wi-Fi, Bluetooth, BLE, LTE with Field replaceable SIM
- Power over Ethernet (PoE) and POE+ on 8x1GE Ethernet ports to support cameras and sensors
- Includes TPM 2.0 and Integrated Quick Assist technology for crypto security
- Location services via GNSS
- Expandable via an onboard PCIe slot for GPU

Volterra Industrial Server

Specifications

	Volterra ISV8012	Volterra ISV8008	Volterra ISV8004
Processor **Cores** **Speed** **Cache**	Intel Xeon® D-2166NT 12 core 2.0Ghz 1 MB/Core	Intel Xeon® D-2145NT 8 core 1.9Ghz 1 MB/Core	Intel Xeon® D-2123IT 4 core 2.2Ghz 1 MB/Core
Memory	8x DDR4 ECC L/RDIMM 2133Mhz (512GB max). Default memory: 64GB		
Storage	1x M.2 2280 to support SSD NVMe/SATA. Default Storage: 1TB 2x 2.5” HDD SATA / SSD SATA / SSD NVMe Drive Bays		
LAN	8 x 1GE 3 x 10GE (10G or 1G mode)		
Wireless	Wi-Fi 11ac 2x2 MIMO Bluetooth 4.2 HS, BLE, ANT+ 4G/LTE, worldwide coverage, with 3G fallback Supported frequency bands B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, B38, B39, B40 and B41 Field replaceable SIM GNSS (GPS, GLONASS, BeiDou and Galileo)		
Management	1x 1GE management Ethernet port, 1x serial console port, 1x USB3.0		
Display	HDMI		
System Power	550W		
POE	Support POE (802.3af) and POE+ (802.3at) on the 1GE ports Max power budget of 125W for POE across the 8x1GE ports		
GPU	Expandable slot to support an MD2 low profile PCIe GPU card measuring a max of 2.71" (68.9mm) H x 6.67" (169.53mm) L		
Security	TPM 2.0 Integrated Intel® QuickAssist Technology		
Dimensions	442mm (width) x 470.65mm (depth) x 44.45mm 1RU (height)		
Chassis	6x 40mm fans N+1 redundancy / 19” rack mounting / Front to Back cooling		
Weight	24 lb		
Environmental	0-55C operating temperature Optional air filter module available for industrial applications		