

PEGATRON  SVR

Ellington Sales kit

2U-2P (2-Socket) Server Solution

2023 Jan

V1.0

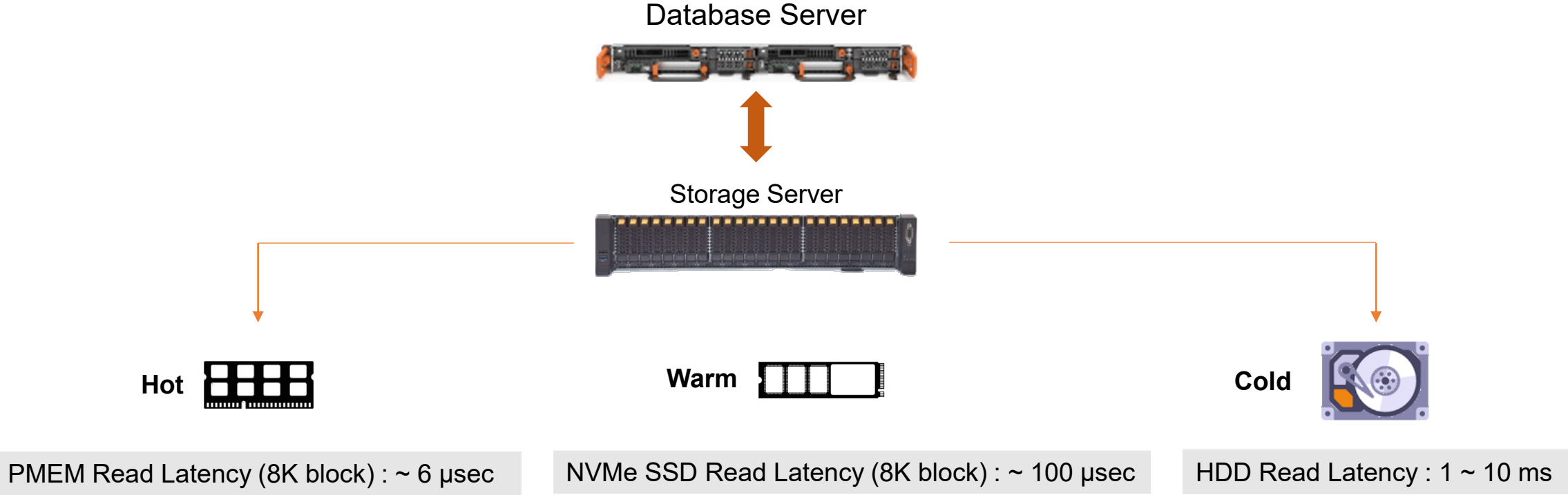
Product Features

2U-2P (2-Socket) General Purpose Server Solution



- Intel Sapphire-Rapids 2-Socket processor solution
- High Memory (up to 32 x DIMM DDR5) and I/O for IaaS
- Intel Persistent Memory support to achieve High IOPS
- Support Ultra-fast All-Flash (PCIe5.0) or Hybrid Storage (SSD + HDD) Configurations
- Install up to 2 x Dual-Slot GPU card for AI Deep Learning
- OCP3.0 Ready
- Built-in Hardware Security (TPM2.0 & Optional for PRF3.0)

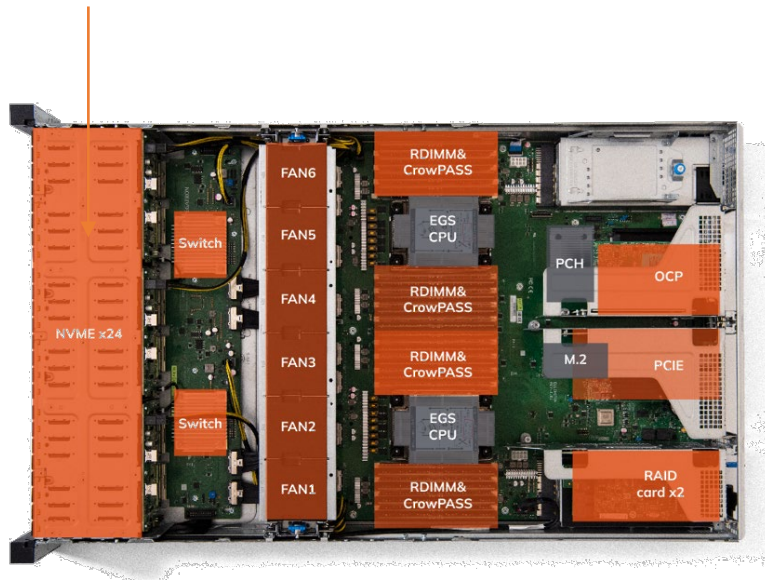
Intel Optane Persistent Memory (PMEM) to Achieve High IOPS



PMEM Read Latency << NVMe SSD << HDD

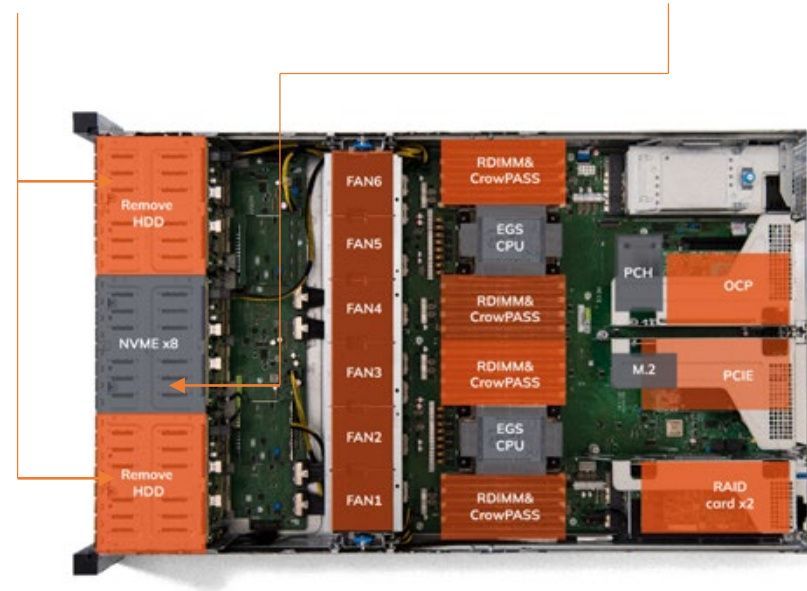
All-Flash or Hybrid Storage (SSD + HDD) Configurations

24 x U.2 NVME SSD



16 x 2.5" SATA/SAS SSD/HDD

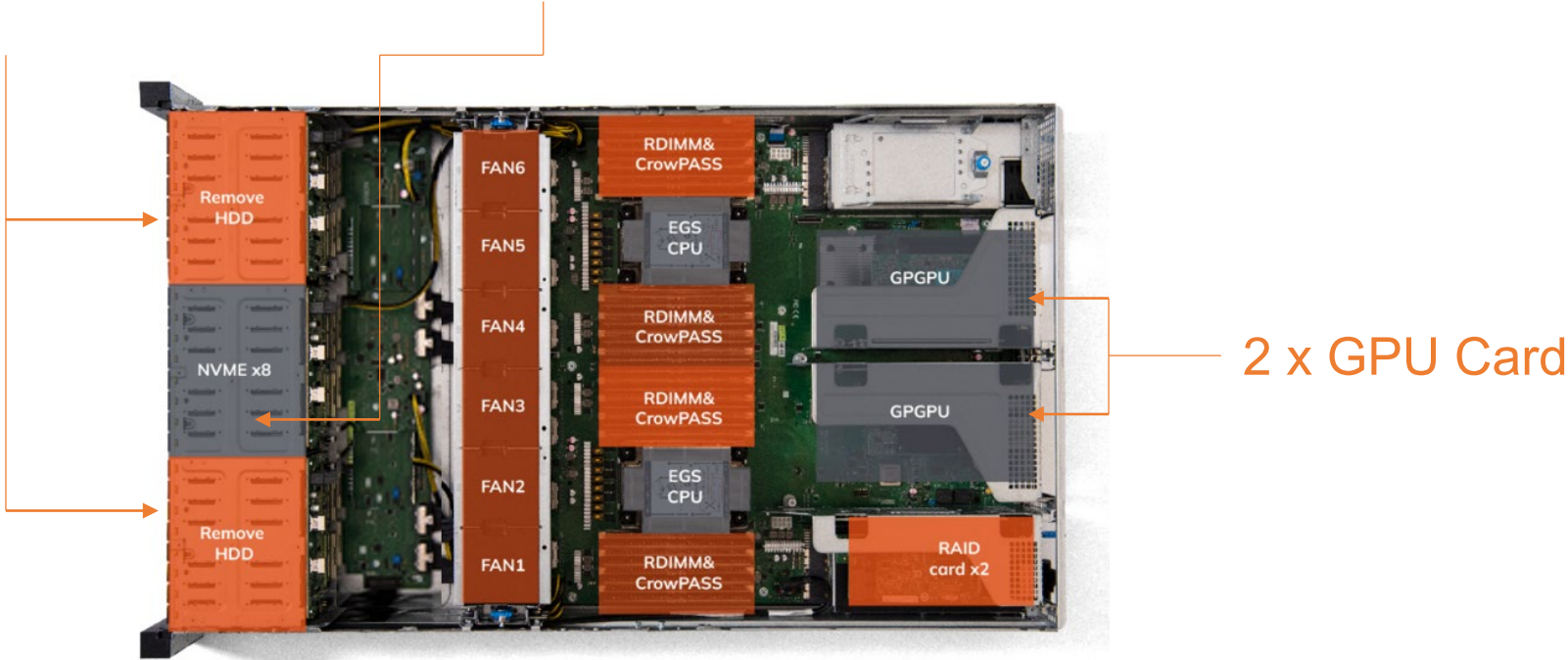
8 x U.2 NVMe SSD



Hybrid Storage with 2 x Dual-Slot GPU Card Configuration

16 x 2.5"
SATA/SAS SSD/HDD

8 x U.2
NVMe SSD



Hybrid Storage with 2 x Dual-Slot GPU Card Configuration

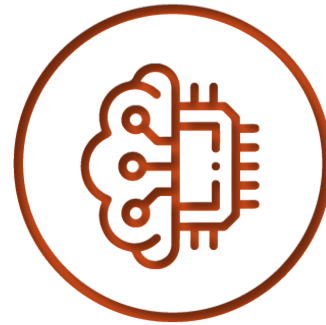
Meet a Variety of Application Scenarios



Virtualization



Database and Storage



AI Deep Learning



Web Servers

Product Specification (1/2)

Ellington Specifications

FF/ dimension	19" 2U, Full width , 482.9 x 87 x 803mm (W x H x D)
CPU + Chipset	Intel Eagle Stream XCC Socket E x2, link via UPI2.0 up to 4, TDP~350W/socket, 64GB HBM2e design reserve + Emmitsburg PCH x 1 support 2 CPU, TDP ≤ 13W, link with CPU via DMI Gen3.
GPU support	GPU x2, via double width/ full length/ full height PCIe card x2 support. Target A100 PCIe Dual Slot 300Wx2
Sys Memory	8 channel/ CPU x2, support 2DPC: <ul style="list-style-type: none">• 1DPC: DDR5 up to 4800 x 16 slot, max 4TB.• 2DPC: DDR5 up to 4400 x 32 slot, max 8TB. RDIMM-3DS support. Module with 8/16/32/64/128/256GB support. Optane Pmem 300 series "CrowPass (CPS)" support: <ul style="list-style-type: none">• 128~512GBGB DIMM, max 8TB.• DDR5 DIMMx8 + NVM DIMMx8/ CPU support.• ~15W support.
BMC	ASPEED AST2600, Cortex A7x2+M3, SDRAM: DDR4 1600 up to 2GB
Storage	Onboard Storage <ul style="list-style-type: none">• M.2 2280x 1, NVMe & SATA support• Up to 24 x 2.5" SFF NVMe from PCIe Switch Boards (PEX89072) RAID0/1/5/10 via BRCM 9670-24i RAID card support. <ul style="list-style-type: none">• 16 x 2.5" SFF SATA/SAS + 8 x U.2 NVMe support
Expansion slot	PCIe 5.0 x 8 slots: <ul style="list-style-type: none">• PCIe x16 x 2 from CPU0/1, FHFL, 300W• PCIe x8 x 5 from CPU0/1, FHHL x 4, HHHL x 4, 25W• OCPv3 (powered in S5) from CPU0: x1• M.2 2280 x1 from PCH• All x16 slots must support CXL flex bus

Product Specification (2/2)

Ellington Specifications

I/O	<ul style="list-style-type: none">• USB3.2 Gen1 x2 (5Gbps, rear x2)• USB 2.0 x 2 (front)• VGA x2 (front x1 + rear x1)• Serial port x1 (internal)• 1x Power button• 1x ID button
LAN On board	RJ-45 dedicated IPMI LAN x 1 RJ-45 1GbE x1
LAN Via PCIe Card	QSFP28 100 GbE x2 Agilio CX, 2x40GbE.
LAN Via OCP slot	OCP3.0 x16 SFF
Security	Support TPM 2.0 (Nuvoton NPCT750) Support PFR 3.0 (Lattice LFMNX-50-5FBG484C)
Management SW	IPMI 2.0/ Redfish KVM with dedicated LAN
OS	MSFT Windows Server2022/ RHEL8.4, 8.5 and later /SLES 15 SP3 and later /Ubuntu 21.10,22.04 LTS and later
Power	2000W 1U Power Supplies x 2 with PMBus <ul style="list-style-type: none">• External PSU: AC to DC48V when add internal PDB for DC48V• Internal PSU: AC to DC12V when remove PDB, total power depends on inventory. ACPI/ APM power management Redundant PSU
Thermal Solution	6056 FAN x6

Product Front /Rear View

