Pliops-Powered Instance

Bare Metal Cloud servers with Pliops Extreme Data Processor (XDP)

Solution Overview

Pliops on Bare Metal Cloud gives you access to breakthrough performance and storage optimization capabilities. Just as GPUs overcome processing inefficiencies for complex algorithms, Pliops XDP multiplies the scalability of workloads and data capacity by delivering ultra-high performance drive fail protection and in-line compression for your NVMe SSD-based workloads. This helps you maximize CPU usage for performance gains with greater reliability while lowering your costs.

Available as part of Bare Metal Cloud, Pliops XDP-powered instance can be automatically deployed in minutes.

Configuration

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- ✓ **Dual Intel Xeon Gold 6336Y** (256GB RAM, 6x 8TB NVMe, 2x 25G, 1 IP)
- ✓ **Pliops XDP PCIe Card**
- ✓ **Operating System Supported:** Linux
- ✓ **Locations:** Phoenix

Why Deploy Pliops-Powered Instance?

Pliops-Powered Instance is ideal for processing data and storage-intensive workloads such as databases, analytics, AI/ML, and HPC, among others. The solution helps you overcome storage inefficiencies through hardware acceleration technology that frees the CPU from these tasks. Deploy Pliops-powered instances when you are looking to:

Speed up Databases
Accelerate RDBMS, NoSQL, In-memory database, analytics, and other data-intensive application performance.

Modernize Enterprise IT
Build an optimized data architecture that eliminates bottlenecks to maximize the use of CPU cores and other system resources.

Software-Defined Storage
Increase throughput resiliency and QoS with no CPU impact. Extend useful life and capacity of SSDs for lower cost/TB.

Edge, 5G and Content Delivery
Low latency and high bandwidth to meet SLAs. High storage resiliency for increased uptime of edge infrastructure.
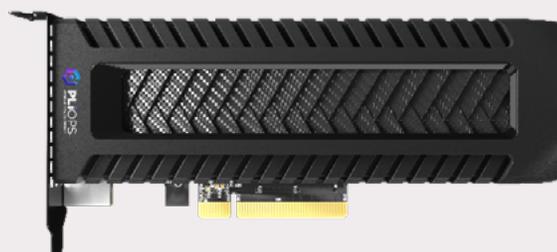
Pliops Extreme Data Processor

How it Works

Traditional storage technologies are often inefficient when it comes to processing data and storage-intensive workloads such as databases, analytics, AI/ML, and HPC, among others.

Breakthrough data structures and algorithms streamline the management of data flows from application to storage.

A Pliops-powered instance helps you overcome storage inefficiencies through hardware acceleration technology that frees the CPU from these tasks.

- Up to 10x performance increase through radical improvements in how data is processed and SSD storage is managed.

- Drive Failure Protection (DFP) brings a new level of performance with RAID 5/6 reliability to NVMe SSD-based environments. DFP is up to 2.5x faster than software RAID 0 which offers no protection and up to 5x faster than traditional RAID 5/6 solutions, with up to 5x faster drive rebuilds.

- 50% or more drive space reduction over software-based compression, freeing the CPU. Configurable volumes and compression expand user capacity up to 6x.

- Increases SSD drive life by up to 7x by transforming random writes to sequential writes, reducing write amplification.

How to Deploy

Pliops-powered instance can be provisioned automatically with several simple clicks. Bare Metal Cloud is built to provide the flexibility of Public Cloud in a dedicated environment, enabling you to spin up your physical machine within minutes. You can choose between hourly and monthly billing options, as well as flexible bandwidth packages. 15 TB of free bandwidth is included with your account.

Step 1: Create a Bare Metal Cloud account.
Step 2: Choose *Deploy New Server*.
Step 3: Select your location.
Step 4: Choose your billing model.
Step 5: Select your instance.
Step 6: Select your operating system.
Step 7: Enter Hostname and SSH key details.
Step 8: Buy a Public IP allocation.
Step 9: Click *Deploy New Server* to start.

Features

- Immediate value with no application changes needed

- Easy-to-use API and CLI tools

- Automated server provisioning in minutes

- Pay-per-use billing, monthly and yearly reservation options

- 15 TB free bandwidth included (5 TB in Singapore)

Advanced XDP Features

- Standard block device with high and consistent performance

- Drive Fail Protection protects against multiple single drive failures

- Supports up to 64TB physical and up to 128TB of user data

- Virtual Hot Capacity eliminates the need for dedicated hot spare

- Reduced write amp due to data compression and highly efficient data compaction

- Rapid Recovery - Rebuild to allocated Virtual Hot Capacity

- Balances over-provisioning and improves performance

- User-configurable rebuild rate to balance performance

- Full data & metadata protection in the event of sudden power down