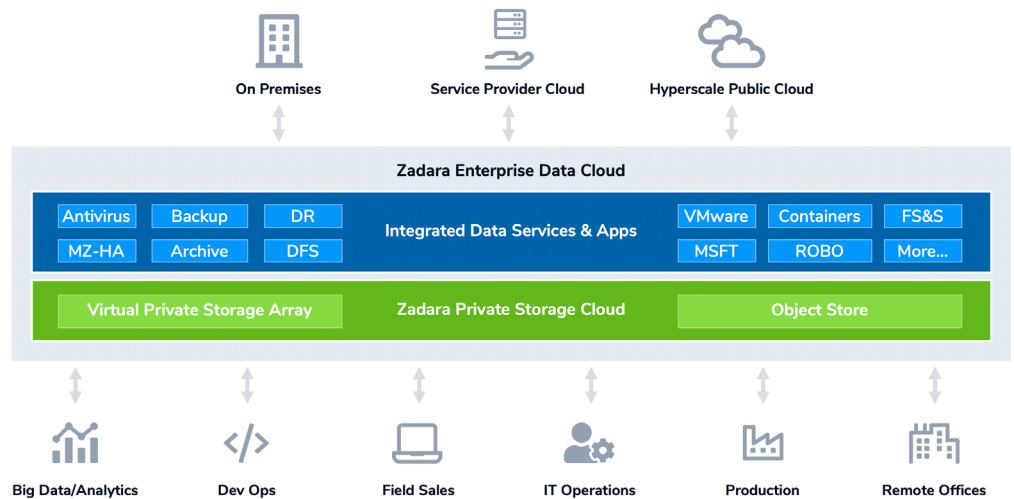




# Virtual Private Storage Arrays

Deliver agility, scalability, and responsiveness while maintaining the control of enterprise storage

Zadara Virtual Private Storage Arrays (VPSAs) give IT organizations the control and flexibility to offer storage services that meet their business objectives.



## Enterprise Storage-as-a-Service

## Enterprise

features and functions

24/7

proactive monitoring

100%

uptime guarantee

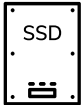

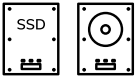

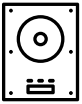


OpEx

pay-per-use billing

Virtual Private Storage Arrays provide file and block services that transparently scale-up and scale-out, to optimize for dynamic requirements. Scale up by adding compute, memory, or capacity resources to existing VPSAs. Scale out by adding new VPSAs to your Enterprise Data Cloud. Either way, all Virtual Private Storage Arrays eliminate single points-of-failure and are provisioned with dedicated resources to ensure high availability and predictable performance while maximizing privacy and security.

# VPSA Types

In Zadara Enterprise Data Clouds, file and block services are delivered by two types of VPSA: All-Flash VPSAs and Hybrid VPSAs.

Drives	Product	Performance	Cost	Use Cases
	VPSA Flash Optimized		\$\$\$\$	General Purpose File System, Virtualized Computing
	VPSA Storage Array (with Flash Cache)		\$\$\$	General Purpose File System
	VPSA Storage Array		\$\$	General Purpose File System
	VPSA Object Storage		\$	Backup, Archive, Static Data, Media Files, Big Data

As part of our infrastructure upgrade, we set an initial goal to double our performance. With Zadara storage, we tripled our performance. This was far beyond our expectations.

**Antony Poppe,**  
Global Network and Visualization Manager, Lawter

## All-flash VPSAs

Zadara All-flash VPSAs are ideal for applications and use cases that demand very high sustained performance at a compelling price point. Unlike storage offerings from leading cloud service providers, Zadara’s All-Flash VPSAs put the control, benefits, and economics of combining all-flash performance with data reduction directly into the hands of users. Go fast, use less, pay less.

## Hybrid VPSAs

Hybrid VPSAs provide hard disk-based capacity. Optionally, Hybrid VPSAs can utilize solid state disks (SSDs) as an adjustable “flash cache” to accelerate storage performance. These HDD/flash hybrid configurations deliver an optimum balance of performance and economics for many applications.

Maximize capacity. Tune performance to align with business requirements. Pay less.

# VPSA Data Reduction Strategies

Zadara has adopted a comprehensive, multi-layered approach to enable customers to minimize their storage capacity consumption, and therefore costs.

**Thin-provision volumes** - Independent of the defined capacity of a volume, capacity is only consumed by data that is actually written

**Pattern removal** - Identifies and removes repetitive binary sequences

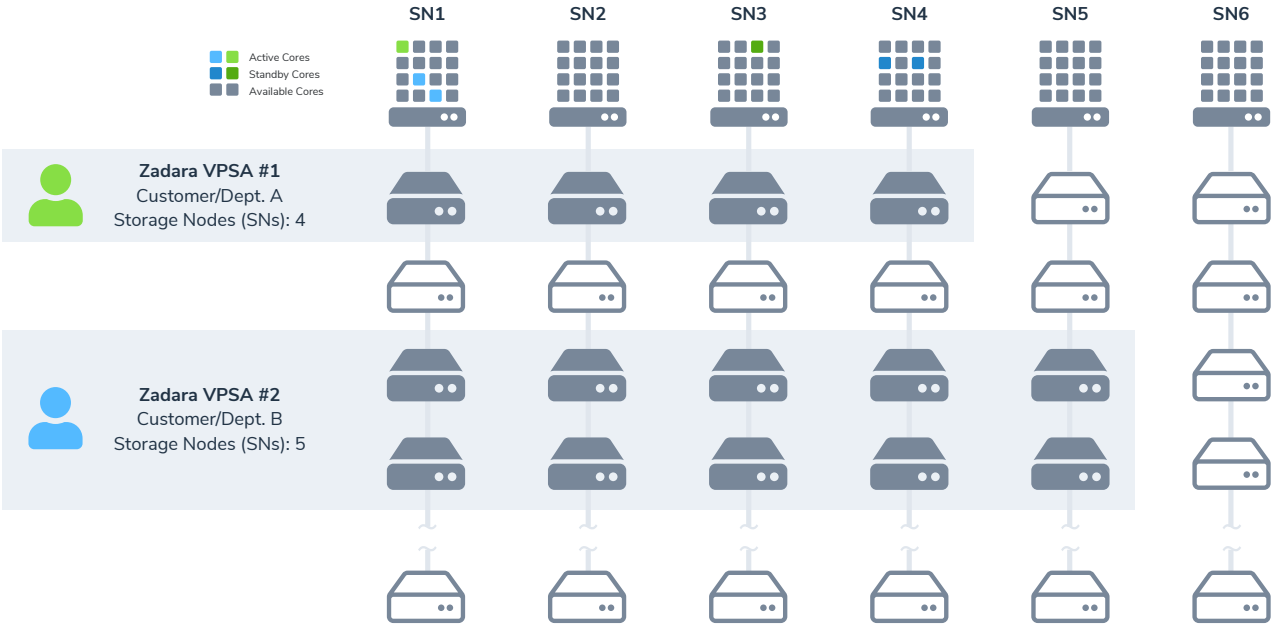
**Inline deduplication (all-flash only)** - Stores only unique blocks

**Inline compression** - Encode stored data to use fewer bits than the original representation

Because deduplication and compression effectiveness depends strongly on data type, both inline deduplication and inline compression are settable on a volume-by-volume basis.

## Multi-tenant efficiency. Single-tenant experience.

To simplify configuration, validated combinations of CPUs, RAM, connectivity, and maximum storage capacity are packaged into Engines. Engines, in turn, are hosted across multiple Storage Nodes (SNs). Storage Nodes may be installed in any combination of on-premises, colocation facilities, and Zadara-managed facilities.



## VPSA Data Protection

### RAID

In keeping with Zadara's philosophy of providing storage administrators with the control of enterprise storage, Hybrid VPSAs offer several RAID level options to enable IT professionals to match resilience, performance, and cost to business requirements. Currently, VPSAs offer RAID levels 1, 6, 10, and 60.

### Snapshots and Clones

Zadara snapshots are read-only, point-in-time, volume images that only consume capacity when the underlying volumes are modified. Snapshots may be created manually or automatically. Zadara snapshots can be used as first-tier backups, to speed backups and eliminate backup windows for external media (e.g., tape, object storage, or remote backup targets) and, combined with clones, to create reference data sets that can be tested to destruction without impacting production workloads.

### Remote Replication

Leveraging Zadara Remote Mirror, customers can replicate snapshots throughout their Enterprise Data Cloud, on-premises or to any of Zadara's dozens of public storage clouds including AWS, Azure, Google Cloud Platform and others.

### Integrated Antivirus

By integrating the McAfee virus scanning engine directly in Virtual Private Storage Arrays, antivirus file scans are performed locally to storage, eliminating network latency, reducing network traffic, and eliminating the requirement for acquisition and maintenance of dedicated antivirus servers.

### Zadara: Enterprise storage for clouds. Cloud storage for enterprises.

Control your data and pay only for the storage you consume. Zadara is a fully-managed service with a 100% uptime guarantee, available on premises, at your chosen service provider, or through the marketplaces at AWS and Google Cloud Platform. This is what we do. It's all we do. And we've been doing it since 2011. Find out more. Call, email or visit us online today.

#### Key Service Providers



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