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Introducing Vertica in Eon Mode for Pure Storage

The public clouds have provided broad access to cost-effective object storage and a cloud-optimized architecture that separates compute and storage. Vertica in Eon Mode for Pure Storage brings the benefits of analytics in the cloud to your data center.

Vertica in Eon Mode for Pure Storage at a Glance:

- **All the Benefits of Cloud Innovation:**
  Migrating data and analytical workloads often carries unforeseen costs and risks. Vertica in Eon Mode for Pure Storage delivers the benefits of cloud to on-premises data centers.

- **Operational Flexibility:**
  Leverage the separation of compute and storage architecture from on-premises data centers and scale compute resources up or down based on demand.

- **Workload Isolation:**
  Isolate workloads for departments or projects without replication using subclusters.

Cloud Architecture Transformed Data Management

The public cloud has transformed the way businesses consume IT services, and the data warehouse is no exception. Object storage provides a cost-effective way to store massive data volumes. Separating compute resources from storage allows users to scale compute up and down with demand and pay only for what they need, enabling operational flexibility and dynamic resource allocation. Workload isolation allows users to support multiple projects simultaneously without the need for costly and time-consuming replication.

Vertica in Eon Mode embraces these cloud-optimized innovations to meet the demands of the modern data center. Vertica in Eon Mode delivers all the benefits of Vertica in Enterprise Mode, regardless of the size of the data volumes or number of concurrent users. The difference? Vertica in Eon Mode stores data in an S3 bucket on the Pure Storage FlashBlade™. One subcluster can service a dashboard while another runs year-end reports, both accessing the same S3 bucket but without impacting one another's SLA. Once the year-end reports are done, its subcluster can be stopped so that the compute can be re-purposed. A third subcluster might be responsible for nightly data loads; provision it when needed, de-provision when done. Create as many subclusters as required to service various dynamic and intermittent organizational needs.
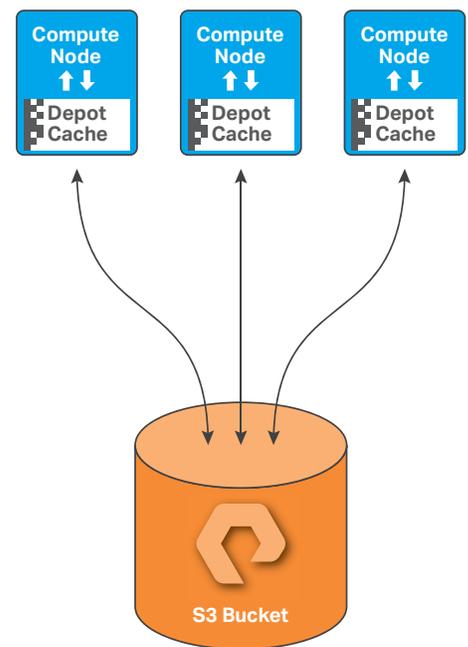

Figure 1. Vertica in Eon Mode for Pure Storage allows users to scale compute resources independently of storage.

An Industry First: Vertica in Eon Mode for Pure Storage

Until now, the benefits of the cloud data warehouse have been available exclusively to data-driven organizations that store their data in the public cloud. However, a significant amount of data and workloads remain on-premises.

Migrating data and analytical workloads to the cloud often carries unforeseen risk, cost, and complexity that are prohibitive for many businesses. Yet those companies still seek the flexibility of a cloud analytics solution. Now, in an industry first, Vertica and Pure Storage have partnered together to bring all those capabilities to on-premises environments.

Pure Storage FlashBlade is an all-flash data hub that serves as the S3 bucket for Vertica in Eon Mode. It consists of three components:

- **The Blade:** a powerful, elastic data processing and storage unit
- **Purity:** Massively distributed software for limitless scale
- **Scale-out Fabric:** Software-defined fabric that scales linearly with more data and clients

Vertica in Eon Mode for Pure Storage is the industry's first analytical database solution with a separation of compute and storage architecture delivered on-premises. Together, Vertica and Pure enable you to:

- Isolate workloads by business unit or by type of workload using subclusters
- Scale compute to the active data set ("hot data") without archiving inactive data
- Bring varying levels of compute to the database by scaling the cluster as needed

The Depot Is Now Optional

Vertica in Eon Mode uses a caching layer called the "Depot" comprise of ephemeral data storage that is tightly coupled to compute nodes. The Depot ensures high performance in public clouds, where network speeds, storage response times, and data loading performance are all variable.

With Vertica in Eon Mode for Pure Storage, the need for Depot is dramatically reduced, as network latency, object response times, and data loading are more reliable on-premises. Additionally, compute nodes with smaller embedded disks are less expensive. While the Depot still adds value in some use cases, most users will get the performance they need working directly with the FlashBlade.

Analyze Data Wherever It Lives

While the public cloud is a necessary consideration for most organizations, the future of infrastructure is mult-cloud and hybrid—a mixture of on-premises and cloud environments. Not every database or workload belongs in the cloud, but that doesn't mean they can't benefit from cloud innovations. Vertica in Eon Mode for Pure Storage delivers a scalable, performant analytical data warehouse solution with all of the benefits of the cloud, now on-premises.

Learn more at
www.vertica.com/purestorage