Achieving Agile and Highly Efficient Upstream Operations with OvationData Nexus Cloud

How to innovate Oil & Gas Exploration & Production with data

Data quality and data accessibility are key indicators of business agility levels

Deriving value from upstream analytics requires the consolidation, cataloging and storing of quality data in a scalable centralized environment, free of basic errors such as incorrect formatting, incomplete meta data, or data that is mislabeled. The impact of increasing upstream digitization on the data preparation and quality-checking (QC) processes cannot be underestimated. Weak processes will be overwhelmed by the volumes of data required by analytics workstreams, and if significant amounts of poor-quality data slip into the system, then overall Exploration & Production (E&P) workstream results cannot be trusted.

In addition to data quality assurance, data accessibility is key to the success of upstream analytics. Traditionally, the sheer quantity of data amassed means that a substantial amount of it is archived to tape. However, if powerful computing and transformative analytics are to be leveraged in an agile business operations ecosystem, archived data needs to be migrated to online storage, since locating and retrieving datasets from tape is significantly slower than disk-based data access.

Leveraging Dell Technologies' market leading scale-out file and object platforms, the Nexus Cloud provides enterprise grade performance, scale, security, flexibility and hybrid-cloud support offerings that meet and exceed our demanding oil & gas customers' requirements.

OvationData Seismic Nexus solution – a strategic operational function

OvationData Seismic Nexus solution based on the Dell EMC PowerScale and Dell EMC ECS platforms transforms and consolidates traditional data siloes and tape archive environments into a unified strategic operational function for business agility and efficiency. The solution is a comprehensive petrotechnical data management environment that combines Dell Technologies exabyte-level scalable data management platforms that are proven in the upstream sector together with over 30 years of geophysical data services expertise of OvationData.

The value proposition of this petrotechnical cloud solution is based on 4 benefit pillars:

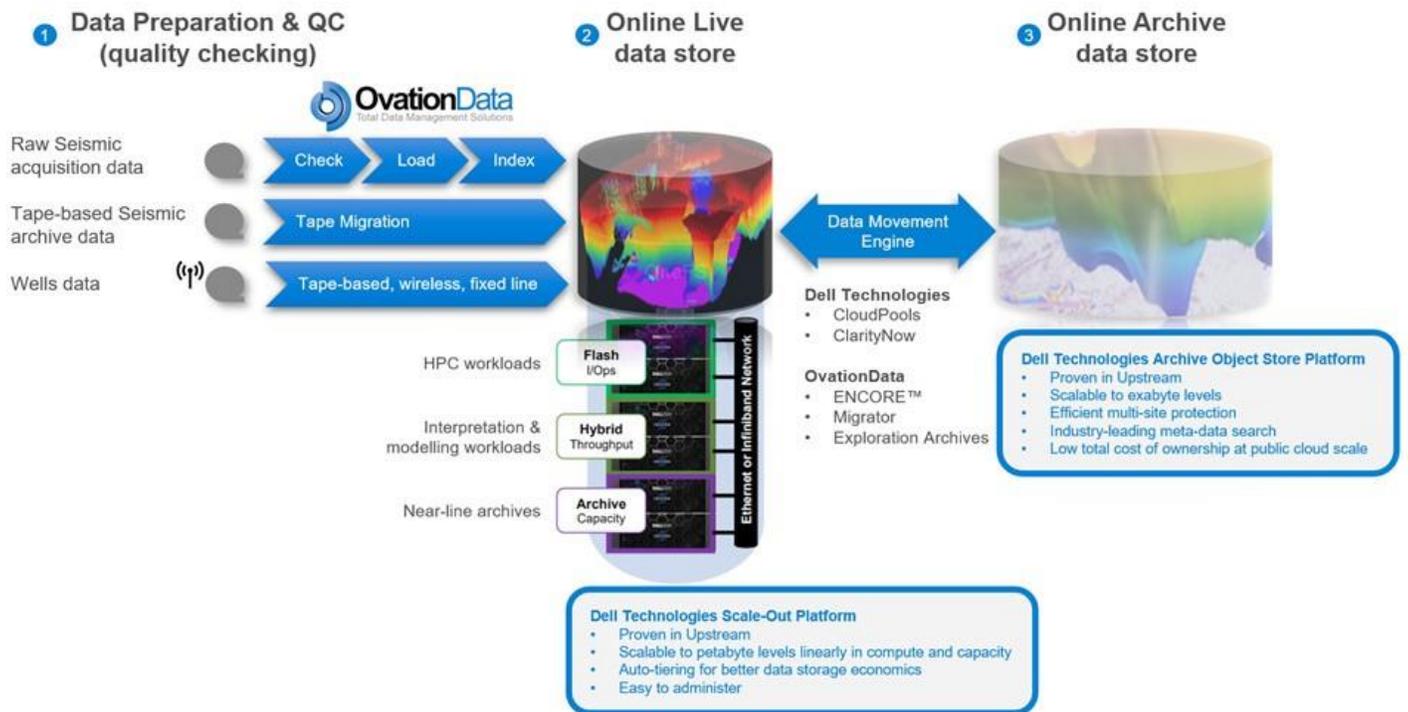| **Orchestration**	**Availability**	**Cost Efficiency**	**Value Extensibility**

1. Orchestration: On-demand data provisioning over a high-performance network, enabling more quality-checked data assets to be brought online more securely in an integrated live data and active archive cloud environment.
2. Availability: Faster time to value because of significantly improved data cataloguing, access and archive retrieval methods.

3. Cost efficiency: A dramatic reduction in data management and infrastructure management costs as OvationData maintains the data securely and takes care of storage media upgrades, plus there are no data hostage fees.
4. Value extensibility: Ability to take advantage of comprehensive data remediation, management and interpretation services by OvationData in a secure cloud environment to accelerate time to insight and to unlock business value quicker.

OvationData Nexus caters to a wide variety of petrotechnical data types, and its hyper-scale characteristics eliminate the data volume challenge. As OvationData manages the cloud environment, the lifecycle administration process for live and archive data is simplified for easy on-demand storage provisioning and delivers robust security of data in-flight or at rest.

The OvationData geophysics expertise is implemented throughout the data lifecycle management process, so the solution offers a clear advantage over generic public cloud solutions. It provides an environment conducive to the execution of advanced analytics workloads such as machine learning and deep learning to:

* optimize oil field asset performance using predictive maintenance and improved workforce logistics
* maximize the production of wells with advanced reservoir modelling
* improve trust in decision making through data consistency across operational functions

Leveraging the value of OvationData Nexus

Once connected to OvationData Nexus, customers have an end-to-end solution for managing and consuming their entire upstream data catalog without worrying about media, storage or compute, all in an efficient, multi-tiered and cost-effective turnkey environment. Performance is optimized for secure data retrieval and Geological and Geophysical (G&G) workload execution, cost is contained, and the benefits of a cloud-based platform can be realized in a practical way.

Better together

Dell Technologies and OvationData have been collaborating for several years, delivering solutions for the benefit of our mutual oil & gas customers. We have combined forces to create an E&P Cloud solution based on best of breed services

and technologies in the industry to deliver a tested and validated oil & gas cloud offering focused on addressing seismic data challenges for our customers. Find out more about OvationData here.

About Dell Technologies in Oil & Gas

Dell Technologies is a global leader in enabling businesses and service providers to transform and deliver enterprise information technology as a service (ITaaS).

Dell Technologies' dedicated Energy practice offers petrotechnical IT Innovation focused on data management, application optimization, big data & analytics, and cloud technologies to exploration production businesses, enabling them to:

- Make better decisions faster
- Reduce costs through efficient operations
- Maximize production & recovery
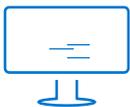
About Dell EMC PowerScale

Dell EMC PowerScale configured with the PowerScale OneFS operating system forms the next evolution of scale-out NAS solutions. OneFS provides the intelligence behind the highly scalable, high–performance modular storage solution that can grow with your business. A OneFS powered cluster is composed of a flexible choice of storage platforms including all-flash, hybrid and archive nodes. These solutions provide the efficiency, flexibility, scalability, security and protection for you to store massive amounts of unstructured data within a cluster.

About Dell EMC ECS

Dell EMC ECS, an enterprise-grade object storage platform, empowers your organization to flexibly capture, store, protect and manage unstructured data at public cloud-like scale, all behind the enterprise firewall. ESG analysts state in a report that ECS helps organizations achieve the near-infinite scale of the public cloud at a 59.5% lower total cost of ownership (TCO). ECS also features deep multiprotocol support—object, file, HDFS—and advanced data integrity, protection and security capabilities. Using ECS, your organization can achieve digital and IT modernization objectives and truly do more with data.

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