Hortonworks

Maximize yields and reduce risk in the supply chain

Oil & Gas Does Hadoop

Fundamental changes in the global hydrocarbon market are driving the oil and gas industry to focus on shale and other less accessible deposits, and extract those new deposits while reducing the associated risks. At the same time, advances in instrumentation, process automation and collaboration are multiplying the available volume of new data types like sensor, geolocation, weather and seismic data. These can be combined with "human-generated" data like market feeds, social media, email, text, and images for new insight.

Applications in oil and gas include:

Integrate Exploration with Seismic Image Processing

Better data enables smarter drilling. But anyone with a digital camera or a smartphone knows that images gobble up storage capacity–and those are tiny images, compared to detailed seismic maps.

Three-dimensional seismic maps help oil and gas companies know where to drill, and Apache™ Hadoop® is an ideal platform for storing those images with their metadata. Storing seismic data from multiple experiences permits learning in the aggregate across all of those experiences. This improves a firm's long-term return on investment, across multiple projects.

Optimize Lease Bidding with Reliable Yield Predictions

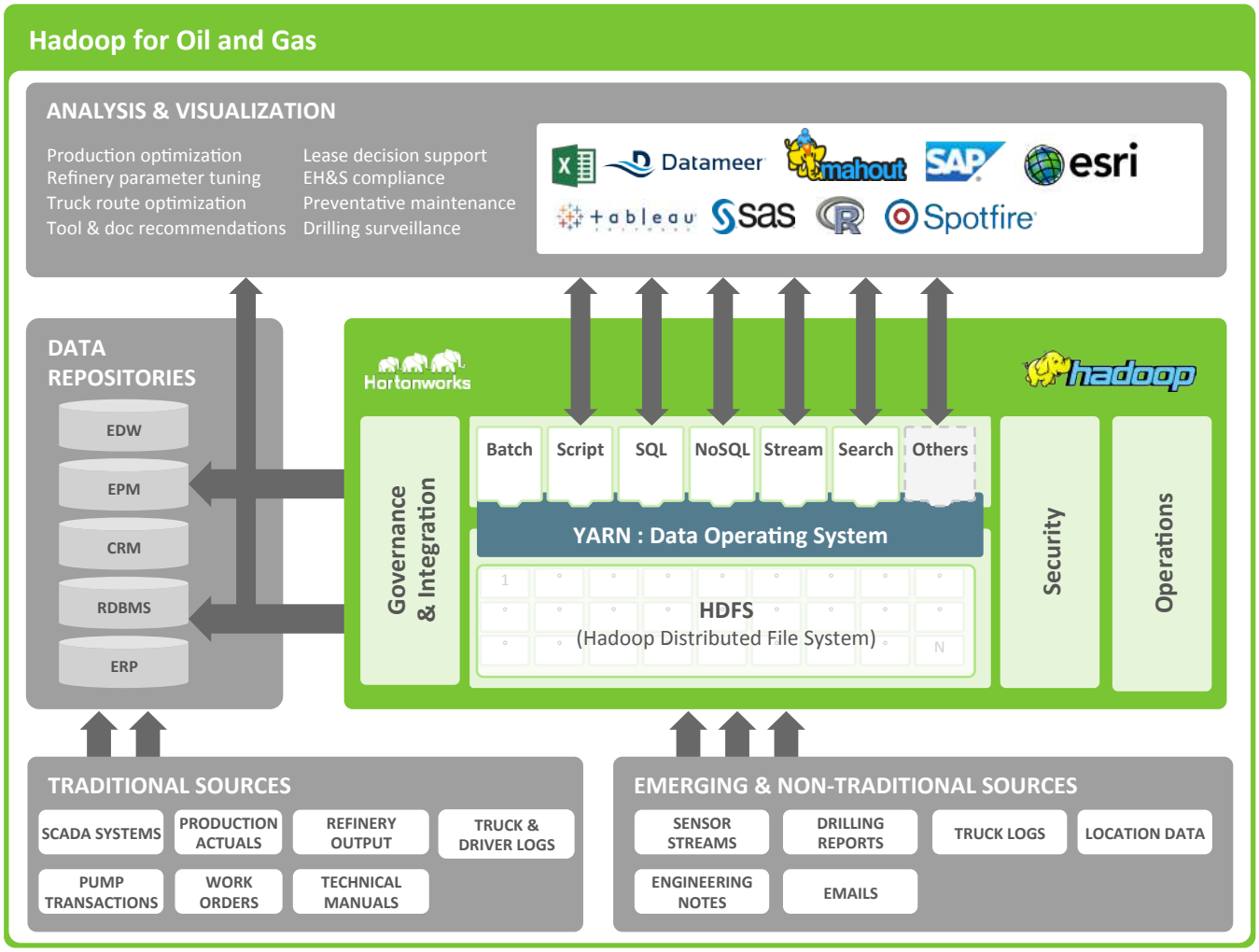
Oil and gas companies bid for multi-year leases to exploration and drilling rights on federal or private land. The price paid for the lease is the known present cost paid to access a future, unpredictable stream of hydrocarbons.

The well lessor can outbid his competitors by reducing the uncertainty around that future benefit and more accurately predicting the well's yield. Apache Hadoop can provide this competitive edge by efficiently storing image files, sensor data and seismic measurements. This adds missing context to any third-party survey of the tract open for bidding, and enables the company to confidently bid or pass on a lease based on yield predictions.

Define and Monitor Operational Set Points for Wells

After identifying the ideal operating parameters (e.g. pump rates or fluid temperatures) that produce oil and gas at the highest margins, that information can go into a set point playbook. Maintaining the best set points for a well in real-time is a job for Apache Storm's fault-tolerant, real-time analytics and alerts. Storm running in Hadoop can monitor variables like pump pressures, RPMs, flow rates, and temperatures, then take corrective action if any of these set points deviate from predetermined ranges. This data-rich framework helps the well operator save money and adjust operations as conditions change.

Hortonworks Data Platform 2.0



Apache™ Hadoop®: Enterprise-class, Enterprise-ready

Apache Hadoop has evolved significantly to meet enterprise requirements, and now encompasses the functional areas that are foundational to any platform technology.

Data Management

Store and process vast quantities of data in a scale-out storage layer.

Data Access

Access and interact with your data in a wide variety of ways–spanning batch, interactive, and real-time use cases.

Data Governance and Integration

Quickly and easily load data, and manage according to policy.

Security

Address requirements of Authentication, Authorization, Accounting and Data Protection.

Operations

Provision, manage, monitor and operate Hadoop clusters at scale.

Hortonworks. We do Hadoop.

Hortonworks is a leading commercial vendor of Apache Hadoop, the open source platform for storing, managing and analyzing Big Data. Hortonworks Data Platform, our distribution of Apache Hadoop, provides an open and stable foundation for enterprises and a growing ecosystem to build and deploy Big Data solutions.

Hortonworks is the trusted source for information on Hadoop, and together with the Apache community, Hortonworks is making Hadoop an enterprise data platform. Hortonworks provides unmatched technical support, training and certification programs for enterprises, systems integrators and technology vendors.

To learn more, visit
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