

Journey to a Greener Tomorrow with Accelerated Digital Adoption.



► The Current State of Affairs in the Energy Sector

Originally, solar energy and wind power were among the primary energy sources, and now we're turning to them again, albeit with more advanced technologies. The energy industry had transformed significantly from the 1750s, when coal powered the industrial revolution, to the 2050s, where we aim for net-zero emissions.

What is driving this change in the energy industry?


Carbon dioxide levels in the atmosphere have increased to the highest levels in human history. A radical reduction in greenhouse gas emissions is necessary to address the current climate change crisis, which means significant changes to the energy sector.

- The energy industry accounts for 42% of global emissions directly or indirectly. *
- Two-thirds of sector-specific carbon emissions are attributable to the upstream activity. *
- To play its part in mitigating climate change, the energy sector must reduce its emissions by at least 3.4 gigatons of carbon-dioxide equivalent a year by 2050 —a 90% reduction in current emissions. *
- With new devices connected to the internet every second, data centers utilize 1.8% of the country's electricity and produce 0.3% of the world's CO₂ emissions.**

Source: [McKinsey](#) * [VentureBeat](#) **

In October and November 2021, the COP26 summit unveiled several international efforts to combat climate change and climate risk. As a result, every energy enterprise's main goal is to transform from coal-powered energy production to greener and more sustainable energy sources such as wind, solar, hydrothermal and nuclear. While the upstream and downstream approaches to meet this business need are numerous, one approach can incur immediate returns - Understanding the energy sources and the data gathered across the entire energy ecosystem. Using enterprise data intelligently can help spark breakthroughs that preserve our planet and reduce net carbon emissions in the near future.

► Why Focus on Data?

Data trends in the energy industry	Impact	Solution
 <p>On average, 80,000 sensors on a modern offshore drilling platform generate data amounting to 10 TB/day. However, 90% of this data is unstructured. Source: Birlasoft</p>	<p>Sprawls of unanalyzed unstructured data lead to inefficient data usage and security and governance issues. Data storage becomes a pointless activity that results in increased storage costs and carbon footprint due to large-scale infrastructures.</p>	<p>Insight into what data exist, who owns it, and how it can be leveraged presents a huge opportunity with three principal areas: improving the consumer experience, cost reduction, and operational efficiency. A 10% increase in data usability could increase the average Fortune 1000 company's revenue by over \$2 billion, or \$55,900 in annual sales per employee. Source: Data Science Association</p>



80% of the time, employees spend searching through unstructured data to make decisions and complete tasks. Four out of every five working days in the industry are devoted to researching unstructured data.

Source: [Journal of Petroleum Technology](#)

As the energy industry becomes more process-driven, unstructured data will become more prevalent. If the data is not managed correctly, it won't be accessible at the right time, resulting in delays in business processes, increased costs, and inefficient operations.

Analyzing data and providing appropriate insights will lead to an effective solution for data lifecycle management. With this approach, it will be possible to store the right data within a hybrid cloud environment at the right location.



A typical offshore platform operates at about 77 percent of its potential production. This shortage affects the entire industry and amounts to almost 10 million barrels daily or \$200 billion in income annually.

Source: [McKinsey](#)

The operational complexity of production and processing facilities is the cause of the performance gap in the energy sector, leading to massive economic loss and can also add to carbon footprints.

Operators must embrace advanced analytics to reduce stark disparities and raise the overall performance bar. Modern data-driven technologies combine cutting-edge engineering, data knowledge, and computational power to solve complex production optimization issues. They will supplement, rather than replace, existing models and physical understanding of the operation of energy assets, bridging performance gaps that impede production.



The global artificial intelligence in the energy market will increase by \$8.06 billion from 2020 to 2024.

Source: [Technavio](#)

Growing demand for data integration and visual analytics is driving the global artificial intelligence market in energy. Developing and maintaining reliable data interfaces has become more challenging due to the proliferation of data and its complexities. Consequently, businesses all over the world are implementing data integration solutions.

Poor quality or irrelevant data used to train machine learning systems can have a significant impact. High data quality allows businesses to be confident that their artificial intelligence projects will be more accurate and that potential biases will be mitigated. Energy companies must conduct a context and content analysis of their data estate to categorize their data and eliminate redundant, outdated, and trivial data.



Data breach costs in the energy industry ranked fifth behind the healthcare, financial, pharmaceutical, and technology industries. The cost of a breach in the energy industry is \$4.65m, which is significantly more than average.**

Source: [SecurityIntelligence*](#)
[Greenbird**](#)

Data truly is the most asset. The risk of mishandling or rogue data access can lead to massive reputational and financial impacts.

Understanding the context of the data enables appropriate lineage and access management, assuring energy enterprises and customers that their data is managed effectively and efficiently.



Here is a short video by Piyush Mehta, CEO of Data Dynamics, as he talks about how energy enterprises can get the most value from their data while minimizing risk.

► Data is a Liability When Unmanaged; Data Dynamics Makes it an Asset!

70% of organizations will rigorously track data quality levels via metrics, improving it by 60% to significantly reduce operational risks and costs by the end of this year.

Source: [Gartner](#)

Data Dynamics Capabilities:

The analysis of unstructured data through improved automation, operational efficiency, and next-level risk management improve productivity by 10X.

Applying greater management discipline to what can often be sprawling data architecture, - sourcing, and -use practices can unlock significant savings. A company can recover and redeploy 35 percent of its current data spending by improving visibility, standardization, and oversight in just five areas.

Source: [McKinsey](#)

Data Dynamics Capabilities:

Reduction in data sprawls and consolidation of multiple data lakes using data analytics can help reduce TCO by up to 60% and reduce the risk of data exposure through efficient identification of sensitive/PII data.

55%* of C-level respondents see data modernization as a key component for cloud migration. Additionally, by 2025, 85%** of enterprises will have a cloud-first principle.

Source: *[Deloitte](#) and **[Gartner](#)

Data Dynamics Capabilities:

By migrating the right data to the cloud in an optimized and governed manner, financial services companies can accelerate their cloud adoption by 200% and develop new technology innovations to meet consumer and market demands.

The average cost of a breach was \$1.76 million less at organizations with a mature zero trust approach than at organizations without zero trust.

Source: [IBM](#)

Data Dynamics Capabilities:

Data Dynamics Capabilities: Potential fines and reputational risk can be reduced with integrated data management and fortified compliance & security ecosystem.

The energy industry sector has been testing the possibility of digital technology in the past two years, including experimenting with analytics, process digitization, and robotics. As a result, they have been overwhelmed with data from different sources such as research, growth, transportation, and distribution – making it challenging for businesses to keep track. Data Dynamics is helping the energy industry leverage the extraordinary knowledge and expertise found in data already within their organizations to achieve maximum efficiency, reduce carbon emissions and achieve both short- and long-term business value.

Data Dynamics is a leading provider of enterprise data management solutions, helping organizations structure their unstructured data with their Unified Unstructured Data Management Platform. The Platform encompasses four modules – Data Analytics, Mobility, Security, and Compliance. Proven in over 300+ organizations, including 28 Fortune 100 and 2 of the five largest energy enterprises, the Platform is a one-stop solution that enables energy organizations to fully capitalize on the capabilities of unstructured and high-volume data and realize competitive advantages.



Reduced Enterprise Carbon Emissions With Intelligent Cloud Adoption: Data centers play a vital role in organizations' technological needs and growth, but they consume a significant amount of energy, accounting for 2%* of worldwide electricity consumption and 0.3%* of carbon emissions. Utilizing cloud solutions instead of standalone data centers can reduce carbon emissions by 30% to 90%.** Enterprises can successfully migrate their data to various cloud storage tiers using an intelligent and data-driven approach, optimizing storage costs and reducing carbon footprints by retiring data centers.

Source: [nature*](#) [Accenture**](#)



Making use of emerging technologies to reduce carbon footprints and run operations effectively: Companies that use AI and machine learning to track their carbon footprints are better able to use predictive technologies to create and meet emissions targets in a way that produces tangible results. Today's energy executives can solve two problems at once by digitizing operations and leveraging their production systems' AI/ML capabilities and integrated applications. Adequate data quality is required to obtain reliable results from these technologies. Data hygiene can be achieved by conducting a content and context analysis of the data and implementing the necessary management measures



Secure: : Deploy secure content analytics technologies powered by AI that offer a unique duality of addressing critical business challenges around the cost of operations and security of PII/sensitive data while bolstering business velocity and revenues. By melding existing workflows and data infrastructure with analytics, we help enterprises achieve the benefits of more contextual decision-making, better customer experience, and risk reduction.



Optimize: : Enable enterprises to decide what types of data will be useful for them, where to get it and how to store it. Categorizing, tagging, indexing, analyzing, and migrating data across heterogeneous sources in the bank using context analytics and automated mobility. As a result, they can tier and archive data based on hot, cold, ROT, and dark data, reducing data sprawl, consolidating data lakes and centers, and optimizing storage.



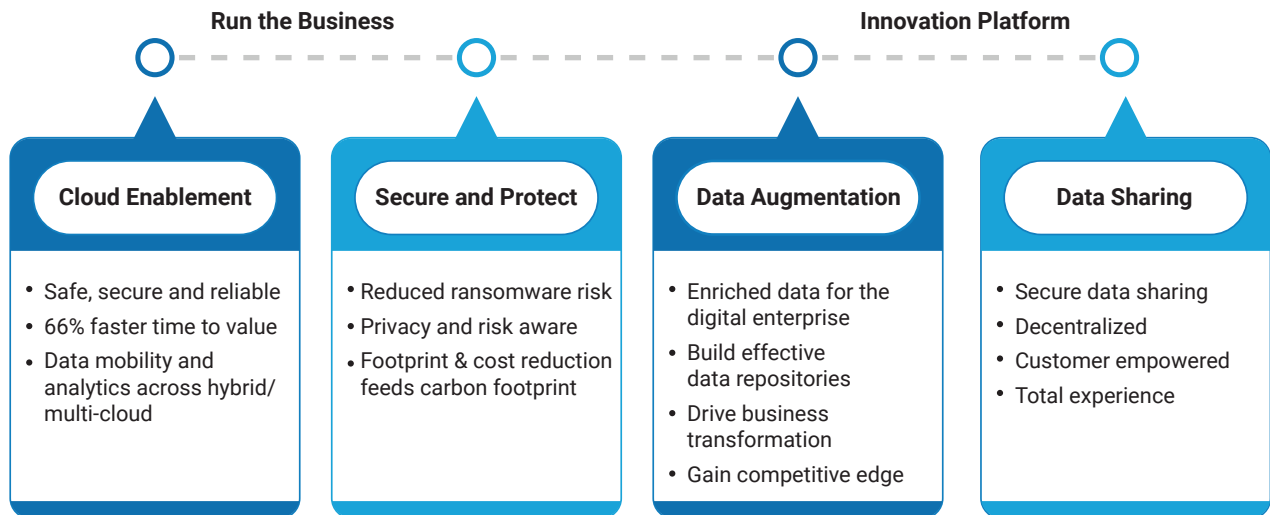
Save: Offering enterprises AI-driven analytics to gain critical and accurate insights into unstructured file metadata for accurate PII/PHI/sensitive data discovery, storage visibility, and infrastructure optimization. Optimize costs of data-related technology through analysis, TCO model, and ongoing data management processes.



Transform: Provide support for the modernization of existing infrastructure, such as the cloud, with end-to-end data analysis, migration, and augmentation to attain the goal to transform.

With Data Dynamics, energy enterprise customers can eliminate the use of individual point solutions with siloed data views. Instead, they can utilize a single software platform to structure their data, unlock data-driven insights, secure data, ensure compliance and governance and drive cloud data management

► Data Empowerment with a Dynamic Platform



► The Platform Encompasses Four Modules:

Module	Mobility	Analytics	Security	Compliance
Capability	<ul style="list-style-type: none"> ► Migration ► Data Pipeline ► Copy and Archive 	<ul style="list-style-type: none"> ► Data Discovery ► Classification ► Index and Search 	<ul style="list-style-type: none"> ► Data Sharing ► Risk Discovery ► Risk Management 	<ul style="list-style-type: none"> ► Privacy ► Governance ► Audit Log
Benefits	Place data as required across regional sites, mega data centers, and cloud providers	Conduct in-depth research for actionable insights and interpret production-related findings in real-time to optimize field production	Quarantine upstream or downstream data from the risk of ransomware	Records for safety and OSHA reporting in a secure and immutable manner

Data Dynamics' Data Management Platform Vs. Conventional Data Management platform: A comparative study [Click to view](#)

► Business Value Delivered:

Providing enterprises with a holistic Data Management Platform to extract the greatest value from data stored in a governed, secured, and optimized manner



10X higher productivity: The analysis of unstructured data through improved automation drives operational efficiency, next-level risk management, and higher productivity.



50% data reduction from primary storage and 80% risk mitigation: Implementing intelligent data lifecycle management for dark data results in significant data optimization and improved governance against cyber threats and rogue accesses



200% faster cloud migrations: By migrating the right data to the cloud in an optimized and governed manner, energy companies can accelerate cloud adoption and develop new technology innovations to meet patient and market demands



Empower Data Democratization: Enable enterprises to achieve data democratization by allowing data creators to partake in the value of the data they create



60% lower total cost of ownership: Consolidating multiple data lakes using data analytics reduces TCO and minimizes the risk of data exposure through efficient identification of sensitive data.



99.64% error rate reduction and 280X reduced cost of error recovery: Data-driven, policy-based migrations that reduce errors and enable intelligent, fast, and secure petabyte-scale unstructured data migrations across heterogeneous environments



In-year ROI on software investment: Storage optimization and risk mitigation creates sub-12-month ROI

► Accelerate Cloud Adoption and Enterprise Modernization with Intelligent Unified Data Management

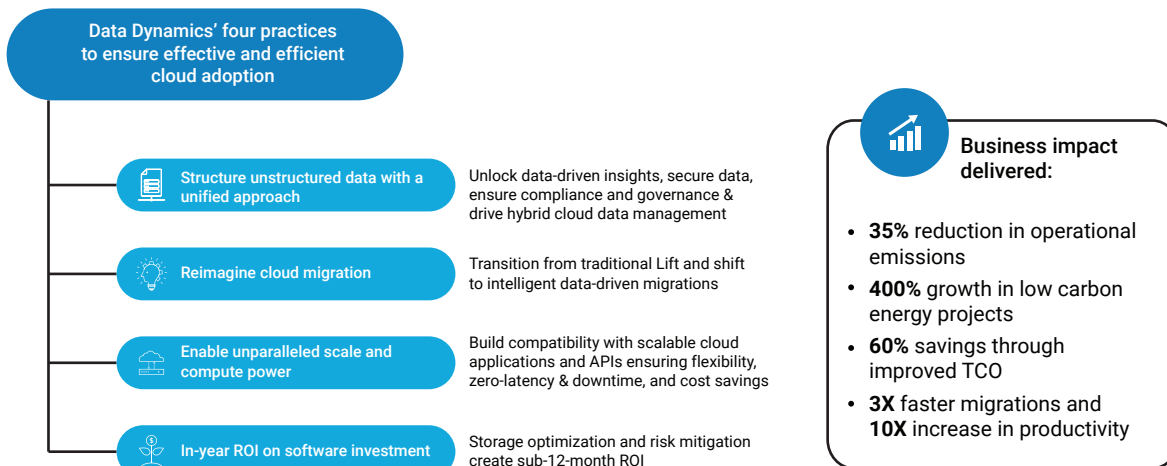
Dealing with unstructured data is like a black hole of unknown possibilities and risks. Enterprises are unaware of what's in there and what they must prepare for. Furthermore, they are completely oblivious to sensitive information in the sprawl and have no way of securing it while moving to the cloud. Customer feedback consistently indicates that migrating file data between disparate storage platforms is time-consuming, labor-intensive, and difficult. They resort to the traditional lift-and-shift approach without data analysis and are prone to incurring more cost, time, and risk. The key is to adopt a data-driven approach and build a strong Cloud foundation to benefit from IT cost savings, productivity gains, business agility, and operational resilience.

Data Dynamics collaborates with leading Cloud service providers to build strong cloud foundations, facilitate efficient and effective cloud adoption, reduce risk, ensure compliance, and enable unparalleled scale and compute power. Our goal is to empower enterprise customers to become Data Custodians of the future by structuring unstructured data and maximizing value through data-driven cloud adoption.



► Reducing Enterprise Carbon Emissions With Intelligent Cloud Adoption with Data Dynamics

A new era of co-innovation is rising, where cloud providers and energy companies are working together to lower their carbon footprint. By consolidating on-premises data centers and data lakes to the cloud in a single data ocean, greenhouse gas emissions can be reduced, power and cooling capacity can be restored, resilience can be restored, operational costs can be cut down, and total ownership costs can be reduced. With technology-driven cloud adoption capabilities that are intelligent, secure, scalable, and compliant, Data Dynamics helps companies realize their net zero goal.



Customer Success Stories



600 TBs of data migrated in 20 days and cost savings of millions of dollars in data center closure for one of the world's seven multinational energy "supermajors" Fortune 50 Company

[Read the Case Study](#)

59% in run rate reduction & 10X increase in productivity by implementing intelligent data lifecycle management for one of the largest Fortune 50 energy companies

[Read the Case Study](#)

Customer Speak

"Migrating unstructured data to Azure was getting very complex, derailing our cloud transformation timelines. That's where StorageX helped us with data discovery and unstructured data migration in a time-sensitive situation."

- Chief Architect, Fortune 20 Energy Company

Awards



Data4Good for Category- Affordable and Clean Energy - Winner - 2022



Cloud Project of the Year - Winner DCS 2022



Data Centre ICT Storage Innovation of the Year - Winner DCS 2022



Migration as a Service - Gold Stevie Winner 2022



Big Data Solution - Silver Stevie Winner 2022



Milestone of the Year | Customer Growth - Gold Globee Winner - Globee 2022



Disruptor Company Award for Information Technology Software - Globee 2022



Most Innovative Tech Company of the Year - Globee 2022

The Data Dynamics Difference



Unified unstructured data management platform



Versatile solutions for organization-wide application



Industry-leading training and 24*7 customer support




Enterprise-class scalability and flexibility





In-year ROI on software investment

Trusted by Global Companies



300+
Customers


28 of the
Fortune **100**


Over **400PB**
of Data Analyzed
& Migrated


Net Customer
Retention Rate
of **160%**


4.9 out of 5
Customer Support
Rating


350+ PB
Storage
Optimized


170+ Years
Project Time
Saved


\$250+ MM
Total Cost of
Storage Saved

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