



Exacaster

Data Lake

Painless Adoption of Big Data

Telecoms company **cuts data management costs over 20x**

by offloading its data
from Data Warehouse
to a Data Lake



Reasons to deploy a data lake



Improve operational efficiency by reducing the cost of data management



Leverage data independently of its format and volume



Automate and accelerate data processing



Be ready for AI and machine learning driven analytics

Big data in telecommunications

The growing use of smart phones and data-intensive applications mean the volume of mobile data is increasing rapidly. Therefore, telecommunications is one of the main industries facing the need to develop systematic approaches to data storage and processing. Data lakes have emerged as a leading new architecture in this sector.

Digital transformation

Combined IT and business teams of the most advanced telcos are driving rapid digital transformation. Often, their first task is to ensure that foundations, such as data lakes, are in place so that business can gain more from predictive analytics, personalization and automation.

Improved performance & agility

Digitalization empowers telcos to optimize business processes, enhance customer service and accelerate decision-making. By adopting big data architecture that aligns with rich data management strategy within organization, operators can equip themselves for the AI revolution.

Case Study



About the customer

Our customer is a telecommunications company that provides mobile, landline, TV and internet services to the millions of households.

NEED

The constantly increasing demand for data storage and processing could no longer be handled at a manageable cost by the company's existing data warehouse (DW).

The company wanted to respond to its evolving data management needs by heavily reducing costs related to its big data infrastructure.

OBJECTIVES

- Speed up data processing with massive parallel data loading to a low-cost data management platform.
- Gain new insight value from the different forms of data available, both structured and unstructured.
- Focus the company's business intelligence resources on insights and analytics rather than ETL development and maintenance.



SOLUTION

Exacaster's on-premises data lake solution was chosen for DW offload. The open source Hadoop platform was deployed.

Architecture shift

BEFORE
Proprietary hardware
+ proprietary software

AFTER
Commodity hardware
+ open source software

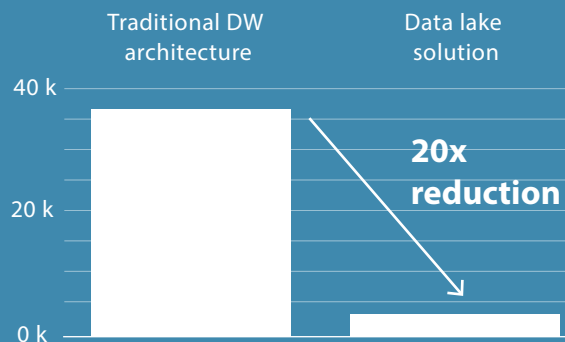


Data lake is a hub that centralizes all enterprise data captured from multiple sources into one logical platform. It provides a foundation for managing large quantities of data in a consistent way, with new, real-time capabilities and use cases.



RESULTS

Cost of data storage and processing per 1 TB per year



Data Lake brought a significant reduction in operational costs plus a range of other benefits

Data was offloaded to low-cost commodity infrastructure - an open source Hadoop platform. This solution provides highly scalable data storage with operating costs that are up to 20 times lower than a traditional DW.

Offloading to a data lake also cuts operation and maintenance time thanks to the professional and fully managed services offered by the Exacaster team.

	Traditional DW platform	Data lake on Hadoop
Handles structured and unstructured data of any form	~	✓
Is highly scalable and efficiently runs huge data workloads	~	✓
Data processing speed rises lineally with hardware capacity	~	✓
Petabyte scale data storage capacity	✗	✓
Runs open source software	✗	✓
Suitable for use with affordable commodity hardware	✗	✓
Enables the efficient execution of AI and machine learning workloads	✗	✓

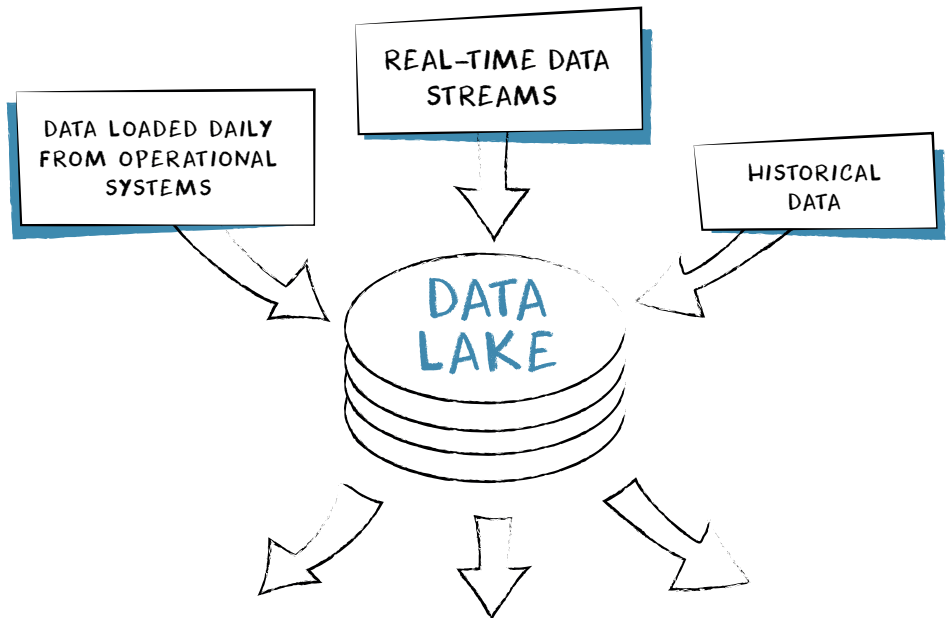
✓ yes ~ partly ✗ no

Business impact

Extracting more value from big data

The company successfully overcame the limitations of its existing DW by offloading data into a data lake. Now all kinds of data can be easily accessed regardless of its form: this includes text, relational data, logs and more.

Whenever possible, the data lake stores data in its native format, only transforming it when necessary. The company is now able to process both raw and governed data instantly.



Getting new data faster

The data lake solution features scalability and parallel processing. This enables business users to create data-driven and targeted insights in a much shorter time than before.

Ready for AI-driven technologies

By deploying a data lake, the company can now start to use machine learning (ML) and other forms of advanced analytics on large scale data.

BUSINESS INTELLIGENCE IMPROVEMENTS

- New insights derived from new data sources
- Lower data latency, faster data delivery
- 360 degree customer view
- Higher data quality and more flexibility enables self-service and leads to end user satisfaction
- Automated insight discovery

AUTOMATED DECISIONS DRIVEN BY AI/ML TECHNOLOGIES

- Marketing area
 - Churn and experience scoring
 - Next best offers and personalization
 - Automated competitive reactions
 - Marketing mix optimization
- Operations area
 - Fraud management
 - Customer service improvements
 - Network optimization

DATA MONETIZATION VIA NEW DATA PRODUCTS

- Location analytics products for 3rd parties
- Regional and country level statistics, such as tourist numbers etc.

Data lake deployment process

Data lake implementation starts with designing the data architecture, followed by the transformation of data collection and distribution processes.

After this transformation, ongoing operations are fully taken care of by the Exacaster team. This guarantees quality and continuity.

3 STAGES OF DATA LAKE DEPLOYMENT

ASSESS & DESIGN

- Assessment of existing data architecture
- Alignment of strategic IT/business needs
- Design of target architecture implementation road map
- Security, compliance and privacy requirements

TRANSFORMATION

- Transition to target architecture
- Infrastructure set up
- Deployment of software tools
- Implementation of data security blueprint and compliance
- Setting up of operation compliant with ITIL best practice
- Data import & quality monitoring following best practice frameworks

OPERATION

- End-to-End big data solution operation
- 24/7 data import under SLA
- Service desk for data end-users
- Data engineering (ETL development)
- Training for internal teams
- Assistance from external expert teams on demand



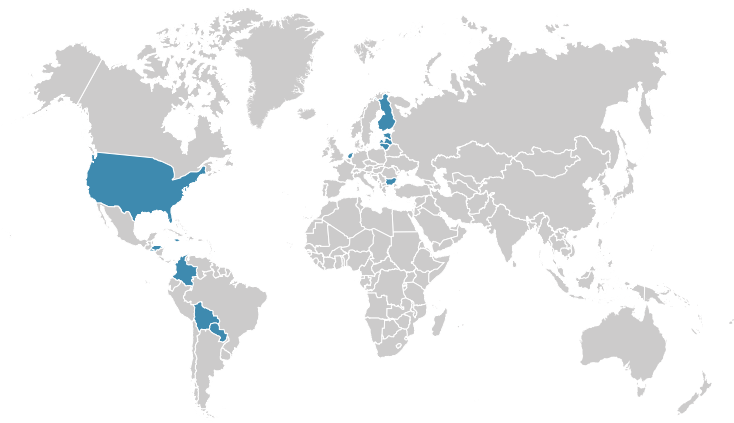
Fully managed, real-time and secure Big Data management solution

Why Exacaster?

Exacaster's approach to designing data lake architectures is vendor and platform agnostic. This means our decision-making is based entirely on meeting your business needs. We make intelligent choices regarding premises vs cloud infrastructure in order to deliver fully managed services that go from implementation right to the maintenance of your data lake solution.

Our service is already being used by mid-sized companies and global enterprises that want to focus their resources on extracting real value from their analytics.

Partnering with Exacaster means establishing a solid, future-proof foundation for your big data strategy, so you can focus on implementing digital transformation at full speed. Plus you can rely on our operational expertise in managing big data with 100% confidence.



 **Contact us** >

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