

 Codex Datalake Engine

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Atos-Cloudera:  
together towards  
a hybrid datalake

**CLOUDERA**

**Atos**

# Together towards a hybrid datalake

Enterprises today are looking at their data with a key question in mind: how can our data be refined, processed and managed to support our business challenges today and in the future?

“By 2021, over 75% of midsize and large organizations will have adopted a multi-cloud and/or hybrid IT strategy.”

Gartner predicts

There are several core challenges that an Organization must address to get maximum business value from their data.



Harmonise data  
governance, security,  
management and control

Security and management policies are difficult to implement across your different data stores - and moving data is often not possible: for practical reasons, like too large in volume, too costly to move or impossible to ensure the latest version across multiple locations; and often for principle reasons such as compliance restraints.



Standardise the processes  
used for analytics across  
the organisation

The processes for analysing the data are difficult to harmonise consistently across the organisation, no matter the whereabouts or type. Without a consistent view, data science modelling capabilities are restricted in interrogation approaches in their effectiveness and ability to re-use across the organization.



Leverage data stored in silos  
across the business

To industrialise the use of data and insights out across the organisation at scale can be impossible to achieve with silos commonly built up from different data stores.

In this paper, we will look at how Atos approaches these issues and the possible solutions for enterprises looking to be the digital winners of today and tomorrow.



# Current market landscape

There are currently lots of choices of services and solution approaches for customers, with many looking to harness the perceived simplicity and flexibility of a cloud-native approach.

However a cloud-only or single cloud provider approach, whilst suitable for some workloads and clients, can have unexpected consequences in the future and cause additional challenges and problems for businesses, which will be discussed in this paper.

**Atos Scientific Community** provides the Atos vision of next 4 years in the Ascent Journeys.

In **Journey 2020**, they predicted the digital shockwaves in Business and described

that Industrial Data Platforms will be the controlled medium for data-intensive inter-enterprise collaboration. The recently published **Journey 2024**, reflects the growing significance of business model concepts like digital ecosystem platforms, and the need to rethink perspectives on user experience and the digital

workplace. While Journey 2024 addresses the potential of a range of technology related areas, it also considers how they will combine and interact within the

wider context of society and business economies.

In enabling these visionary outlooks, Atos developed a platform approach that consists of horizontal hybrid data cloud enablement, providing technology and cloud enterprise agnostic data approach, so that functionality can run anywhere in cloud, in DC or on the Edge, connecting these for the realization of pervasive business end-to-end use cases, that bring insights, guidance and assistance to where the business end user needs it.

“Atos stands out as the pure systems integration competitor on the edge computing market. The launch of a compelling and differentiated hardware offering complements and builds on the robust cloud portfolio, giving Atos early mover advantages in edge, provided the company avoids commoditized hardware sales while delivering high-value orchestration services to clients.”<sup>1</sup>

TBR

Atos offers a global offering to accompany its customers towards hybrid architectures. This architecture combines Codex Datalake Engine with Atos Codex Framework for digital business & industry platforms.



<sup>1</sup> TBR "Enterprise Edge Compute Market Landscape", Feb. 28, 2020, page 17

# Atos Hybrid Datalake offering

Benefits of an hybrid datalake:

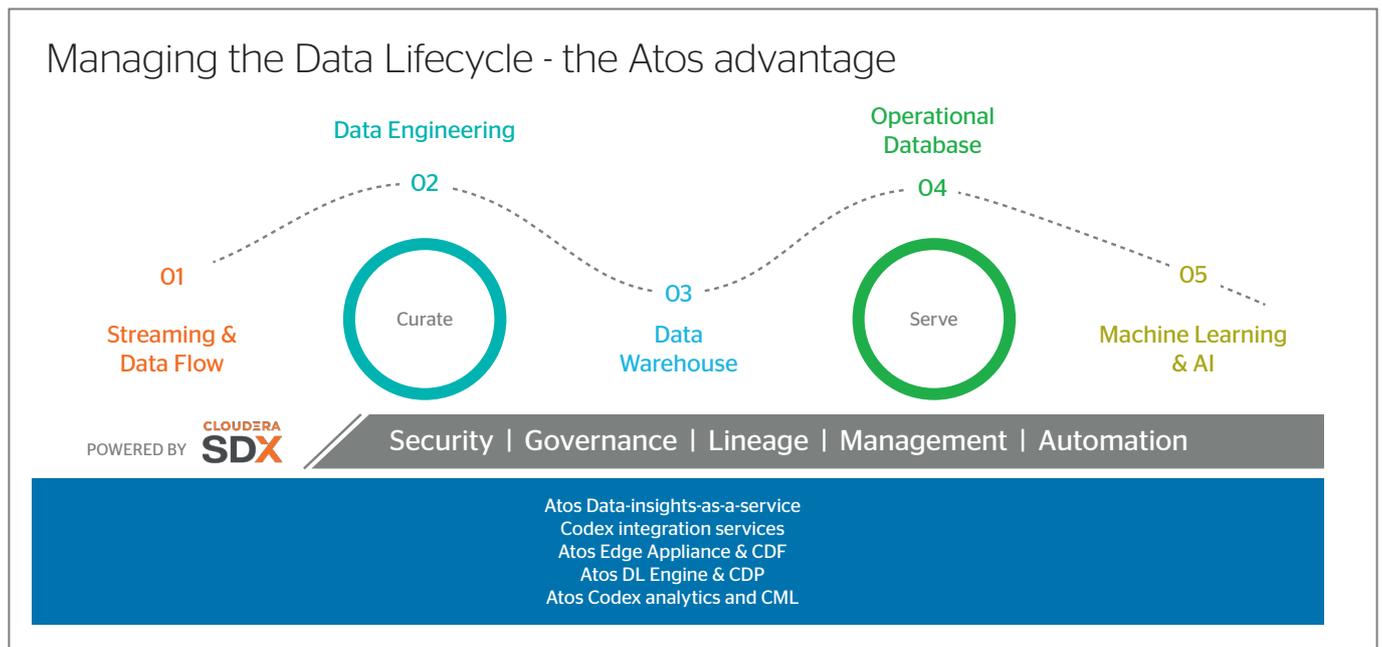
- Time saving for implementation
- Combine on-premise high capacities with cloud platforms
- High ROI Mid-Long term projects
- Open platform
- Runs with any Cloud platform
- Prevents vendor lock-in
- Maintained GPU cost
- Increasing capacities on cloud platforms can complexify your growth by increasing significantly costs due to high cost of GPU for this type of architecture
- Compatible with legacy applications.

## Atos-Cloudera - delivering business insights across the data lifecycle

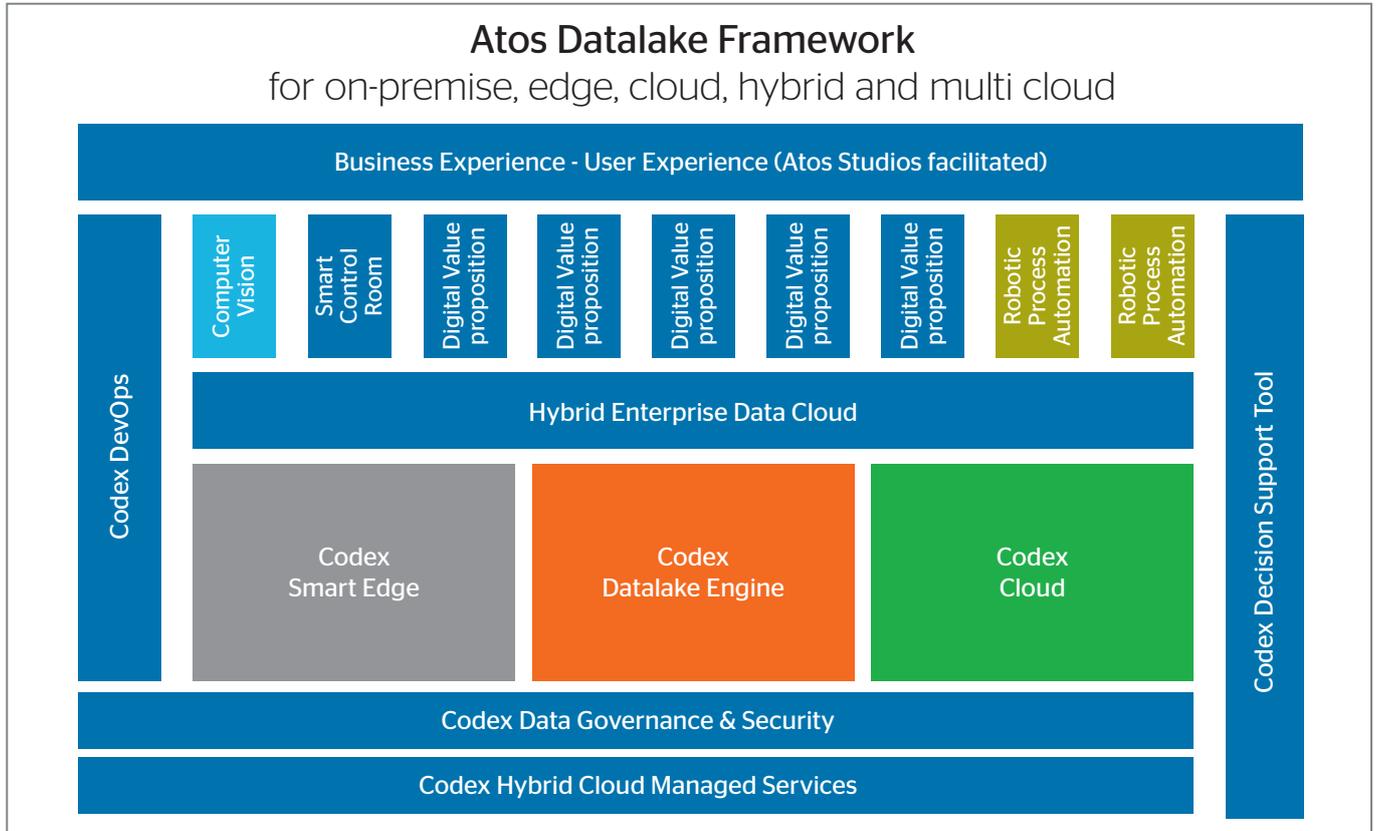
### The need for an Hybrid Enterprise Datalake

The Data lifecycle describes the sequences data goes through from creation to eventual archival or deletion. Across this lifecycle there are different processes to manage and opportunities to derive business value and insights. An Hybrid Enterprise Datalake can provide consistent and reliable security, governance, lineage, management and automation across these stages irrespective of the data type or data state.

Atos & Cloudera offer a global end-to-end solution from data ingestion to AI.



Specifically, Atos offers a global approach for an hybrid enterprise cloud strategy including hybrid architecture, management, security and support.



By using Cloudera enterprise data cloud to navigate these five stages, you can thereby avoid the integration tax often subjected when using individual tools for each stage of the journey.

With the all-new Cloudera Data Platform, the field of possibilities of analytics on any Cloud is widen - enabling the speed and agility the business wants with the security and governance the enterprise demands. Cloudera Data Platform (CDP) is an integrated data platform that is easy to deploy, manage, and use. It delivers powerful, self-service analytics across hybrid and multi-cloud environments with the granular security and governance policies that IT leaders demand. CDP is a new approach to enterprise data that delivers a full range of analytic capabilities from the Edge to AI.

CDP is different from other data platforms and analytics services in four important ways:

**Any cloud** - CDP provides maximum choice and flexibility with the option to manage, analyze, and experiment with data on-premises, in hybrid, private cloud, and multiple public cloud environments.

**Multi-function** - CDP reduces the time and effort to deploy common application types with five new self-service experiences: flow & streaming, data engineering, data warehouse, operational database, and machine learning.

**Secure and Governed** - CDP simplifies security, privacy, and compliance for diverse enterprise data on any cloud through shared data experience (SDX) technologies. SDX makes it easy to create a secure data lake in hours instead of weeks and replaces tedious scripting with "set it and forget it" convenience.

**Open** - CDP is 100% open source, open compute, open storage and open for integration - enabling rapid innovation and protecting organizations from vendor lock-in.

“While enterprises are rapidly adopting data platform technologies and are eager to explore the cloud for driving analytical workloads, many face challenges in trying to leverage all of their data to achieve better business outcomes, solutions such as the forthcoming Cloudera Data Platform help enterprises navigate complex data processes across multiple clouds, manage data governance, and enable multi-function analytics, regardless of where the data resides.”

James Curtis, Senior Analyst for the Data, AI & Analytics Channel at 451 Research

# Atos Hybrid Datalake offering

Codex Datalake Engine appliance runs with on-premise or hybrid architecture on BullSequana S server. It embeds hardware, virtualization, an enterprise data fabric from Cloudera and integrates partner cloud platform (Google Cloud, Azure, Amazon).

Codex Datalake Engine is a consistent data management and security appliance, providing data governance and the management of the complete data life-cycle, from data ingestion, data cleansing, data blending, data discovery, audit, data lineage and policy enforcement. Codex Datalake Engine provides full visibility and control over data.

With its dynamic reconfiguration capabilities, BullSequana S servers combine exceptional performance with unprecedented levels of agility and efficiency. Codex Datalake Engine is **Cloudera** certified and uses Cloudera CDP for data processing.

## In addition thanks to Codex for Business & Digital solutions, Atos delivers:

Business Value delivery at speed:

- End-to-end from Edge to Cloud
- Optimal data - decision latency from source to decision.

Generic by default, specific where needed:

- Horizontal enablement: cloud & tech agnostic, cloud hybrid
- Bring functionality to data, safe, secure, flexible
- "Future proof": understand consequences of today's decisions
- Last mile delivery: to get to the benefits.

Delivered by:

- Industry leading Edge appliance:
  - Smart Edge: pre-installed for IoT and/or
  - Intelligent Edge: pre-installed for industrial AI Vision.
- End-to-end Business Digital Value Propositions (DVP's)
- Codex Data Governance, Security and
- Hybrid Cloud Managed Services.



## Atos-Cloudera approach

For clients who want EDL (1) private on-premise in DC, (2) open source, (3) no vendor lock-in, and/or (4) hybrid with proper data governance, data move (e.g. cloud bursting) and security.

- Atos-Cloudera - delivering business insights across the data lifecycle
- CDP benefits.

As experts in the data space, Atos and Cloudera believe two types of 'hybrid' approach will become critical to getting business value from data.

## Hybrid - as end-to-end multi-platform

Choosing a platform that is open, prevents vendor lock-in and allows you to take advantage of an ecosystem of additional tools and capabilities, as well as providing enterprise grade governance and management at scale, will be key.

## Hybrid - as blending new with the old

Modern, enterprise data platforms allow organisations to build capabilities next to their legacy applications and platforms and build the business insights and get the insights they need by integrating the two.

“90% of businesses expect data-driven insight to become a key differentiator”.

Forrester

# The need for a trusted business partner

IT has always been complex. Cloud is the agent for flexible, scalable change when it comes to simplifying, optimizing and enabling new digital technologies and applications to drive business success.

Atos and Cloudera jointly work together to provide solutions that:

- **Connect people and data.** Generating business value by connecting people, data and machines using cloud-enabled IoT and AI.
- **Generate new revenue streams.** Rapidly design, build and rollout cloud-native applications.
- **Simplify your IT landscape.** Seamlessly manage a multitude of platforms with ease and agility with continuous automation and orchestration.
- **Automate governance.** Manage costs and control deployment and orchestration workloads with automation.

## World-leading expertise

- Consultants, support engineers and professional services, especially those with data science specialities, are world-leading at both Atos and Cloudera through partnership and support agreements.
- Industry-vertical expertise is highlighted with Atos' recent re-organisation to become completely customer-centric. Now not just a leader in technology solutions, but also industry-specific use cases and applications, means Atos becomes an invaluable partner for your company. This verticalization applies to every layer of the customer-facing team.
- **Atos is recognised by Gartner as a leader in 2020 in providing Managed Workplace Services in both North America and Europe.**
- By delivering your solution in one platform, your IT department will become a true business enabler. Allow Atos to manage the solution and implementation and work with the right partners, applying their world-class expertise in the process.
- Gartner-approved methodology and accreditation, with large-scale clients globally implementing the same base solutions.

## Why Atos?

- Atos has the capability to build, host and manage your complete data solution, delivered as a service.
- Alternatively, Atos can provide their proven data lake application as a turnkey solution for you to deploy, underwritten by Atos and with just one support number to call - mitigating managing analytics workloads across multiple environments.
- A proven track record at Atos shows it's possible to provide a comprehensive, out-of-the-box big data platform in just 2 months.
- Your complete enterprise data cloud is under one contract with Atos, integrated across all different environments and workloads - mitigating the need for future adjustments and individualized risks brought up by different vendors. There's no need to sign separately across each technology vendor and then have to handle your analytics workloads independently - not only sucking up budget, but also time and resource. With Atos on hand, everything comes under one umbrella.

## Time-proven solutions

- Proven solutions that have been delivered time and again across the world, can be delivered again in your organisation. Because these have been developed at an up-front cost by Atos, you can benefit from the results and implement even more quickly, easily with a higher ROI than your competitors.
- As a global leader, Atos ensures your innovation is front of mind. Whether you're implementing a data foundation for your business or looking at advanced analytics and deep learning applications at the Edge, you can rely on Atos to deliver.

## Security, governance, compliance and assurance

- Atos has a leading position in the security market, specifically in securing your journey to cloud.
- Cloudera Data Platform, an enterprise data cloud solution, uses SDX to provide consistent security and governance across all of your data, anywhere, from the Edge to AI. This is effective for any client looking at on-premise data storage with cloud burst capabilities, or other forms of hybrid environment, as it ensures blanket security and governance.

## Partnerships

Partnerships, like that with Cloudera, ensure that Atos has world-class certification and proven expertise in implementing a comprehensive, end-to-end enterprise data cloud in your business.

## Contacts

If you have any further questions, please get in touch with  
**Daniel Nutburn** - Cloudera  
**Clément Yunes** - Atos



**Atos is Cloudera's  
EMEA Partner of the Year 2020**

# About Atos

Atos is a global leader in digital transformation with 110,000 employees in 73 countries and annual revenue of € 12 billion. European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos|Syntel, and Unify. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

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Let's start a discussion together

