


# 2024-Modern Data Architecture Project Charter

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## 1. Project Information

\* indicates that this field is required

Project Name*	Modern Data Architecture
IPR Mode*	RAND <div> Explanations of each mode is available at <a href="http://www.tmforum.org/IPRPolicy/11525/home.html">http://www.tmforum.org/IPRPolicy/11525/home.html</a></div>
Type of Project*	Strategic
Strategic Program	Data & AI
Previous Project Charter	Initial release
Project Workspace Link	<a href="#">Modern Data Architecture Home</a>
Project JIRA Link	See Section 4 below
Project Sponsor	N/A
Project Team Chair*	<a href="#">Anthony Behan</a> - Cloudera <a href="#">Cathal Kennedy</a> - Telenor <a href="#">Ahmed Saady Yaamin</a> - Axiata
TM Forum Staff Support	Stuart Dunn

## 2. Project Overview / Executive Summary

<b>Mission</b>	<p>Historically, the data architecture, that became the big data architecture, was focused around getting 'a single version of the truth' - get the data from the enterprise, store it in a central location, and use it for some key use cases like customer profiling and network root cause analysis. Today, however, the requirements for Operators are different in three important ways:</p> <p><b>Everyone wants data:</b> No just some key stakeholders. On top of that, third parties are now demanding access to data to support new business opportunities; so....</p> <p><i>.... The modern Data Architecture project will upgrade legacy architectures to ensure that:</i></p> <p><i>collaboration on data can be effectively supported by Operators, and</i></p> <p><i>models can be shared, adapted and reused.</i></p> <p><b>There is more data:</b> With higher data volumes, more data sourced, and more data consumers today than ever before....</p> <p><i>....The Modern Data Architecture Project will provide the robust governance and policy enforcement mechanisms to ensure that data consumers only see the data for which they have permission to process.</i></p> <p><b>Data applications are more complicated:</b> AI workloads, in particular, are demanding real-time access to high volumes of data for production workloads such as operations automation, and for AI model training. Upstream applications dependencies rely on consistent access to high quality data. Therefore....</p> <p><i>....The Modern Data Architecture Project will define the measures to be taken to enable data access whilst underpinning this with the appropriate data governance to minimize the risk of upstream application issues.</i></p> <p><b>Evolution: The Autonomous Operations goal of Telcos:</b> The data capability should be largely autonomous as well which means Zero-Touch Data Management, Self-Service Data Access and Governance and Right-Data Quality, for instance, therefore....</p> <p><i>....The MDA Project will enable Data management to be taken care of by the 'machine' itself, to realize the Zero-X, Self-X and Right-X efficiencies of an AI-enabled Data Architecture. The Data Architecture must therefore be set up to scale for AI, with humans defining the principles, guardrails and objective functions, but with little to no</i></p> <p><i>human interaction to maintain and evolve the architecture further.</i></p> <p><i>When data architecture evolution and data management are being taken care of in the AI 'black box', the fundamental question therefore is how do we</i></p> <p><i>trust what is being done? How do we trust that the actual output is actually what was intended or needed by stakeholders across the ODA functional</i></p> <p><i>blocks?</i></p> <p>The MDA Project should also outline the data producer architecture as well as the data consumer architecture as distinct considerations:</p> <p>The data producer architecture <i>refers to the data engineering and processes that harvest and generate the data assets, and make them available.</i></p> <p>The data consumer architecture in turn <i>refers to the demand side, where data applications and data requirements from the business gain access to the data, in order to derive a business outcome.</i> In general, the governance of the MDA is similarly both extensive and complex, introducing new elements such as data observability and AI explainability, each of which requires a comprehensive view of the architecture.</p>
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<b>Value</b>	<p>TM Forum's collaboration to "Modernise" Data Architecture will enable the simplification, modernisation and automation of Data Architecture to equip Operators with the flexibility, agility, security and governance they need to effectively couple and decouple internal and external data as well as democratise data to support new business models, whilst managing the scale and volume of Data which AI-Native Operators have to handle today. Expected outcomes of the modernised Data Architecture for the industry include:</p> <ul style="list-style-type: none"> <li>• Data as a first order system</li> <li>• Data will be highly distributed to: <ul style="list-style-type: none"> <li>◦ Ensure scalability</li> <li>◦ Remove silos</li> <li>◦ Avoid moving data</li> </ul> </li> <li>• Open Architecture – Ease of coupling and decoupling: Open APIs, Easily Extensible for new data sources and new architecture components, Open Source...</li> <li>• Data deduplication and avoidance of duplication</li> <li>• Data as a Product enabled by Data democratisation, through open standards: <ul style="list-style-type: none"> <li>◦ Findable</li> <li>◦ Accessible</li> <li>◦ Interoperable and no lock-in</li> <li>◦ Reusable</li> <li>◦ Highly observable / auditable / explainable</li> <li>◦ Well-governed: secure and compliant by design whilst also easy to add new assets to the architecture</li> <li>◦ Application-ready: IAM, Integration Framework, Volume / Time, AI</li> <li>◦ Secured / IAM Assured / Roles &amp; Responsibility / Privacy Assured</li> <li>◦ Fully virtualised</li> </ul> </li> <li>• Hybrid Management of Data "Assets": <ul style="list-style-type: none"> <li>◦ Cloud- and Distributed-"Assets" (data stores, data services such as streaming, model training, development environments etc.)</li> <li>◦ On different cloud infrastructures (public/private)</li> <li>◦ Alternate assets for different performance requirements, aligned with infrastructure – e.g.: <ul style="list-style-type: none"> <li>▪ high volume streaming for network ingestion;</li> <li>▪ GPU-driven compute for AI Model Training;</li> <li>▪ low cost infrastructure for archive data retention / mandated regulatory data retention.</li> </ul> </li> </ul> </li> </ul>
<b>Strategy</b>	<p>The project will look at establishing a methodology for differentiating the value of AI-enabled ODA experience by:</p> <ul style="list-style-type: none"> <li>• identifying the impact of AI and other new technologies on ODA consumers / stakeholders</li> <li>• Determining what openness means to each of them.</li> </ul> <p>As part of this project, we will design and develop an ODE framework for the identification and valuation consumers and producers Running on ODA. This will then enable us to identify the functional building blocks in Operations embedding a Cognitive Core in ODA to open up flexible journeys and experiences in ever evolving domains and ecosystems. A key part of the cognitive core in ODA will be the ODE KPI's for each function block.</p>

### 3. Participants

This section identifies the project team members.


**Note** - Please review the [Team Roles & Responsibilities RACI here](#) which also indicates which roles are mandatory or optional

Project Team Role	Name*	Company*	Confluence "@" mention
<b>Project Team Chair</b>	Anthony Behan	Cloudera	<a href="#">Anthony Behan</a>
<b>Project Team Co-Chair</b>	Cathal Kennedy	Telenor	<a href="#">Cathal Kennedy</a>
	Ahmed Saady Yaamin	Axiata	<a href="#">Ahmed Saady Yaamin</a>
<b>TM Forum Subject Matter Expert</b>	Dave Milham	TM Forum	<a href="#">Dave Milham</a>
<b>TM Forum Project Management Support</b>	Stuart Dunn	TM Forum	<a href="#">Stuart Dunn</a>
	Yvonne Kuimba	TM Forum	<a href="#">Yvonne Kuimba</a>


### 4. Project Workstreams and Deliverables

The project workstreams and deliverables for this project are introduced in the pages below

**Sprint 2024-1**

key	type	summary	customfield_12926	assignee	status
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#### Sprint 2024-2

key	type	summary	customfield_12926	assignee	status
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#### Sprint 2024-3

#### Sprint 2024-4

#### Sprint 2024-5

#### Sprint 2024-6

## 5.Project Backlog

## 6. Legal Notice

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