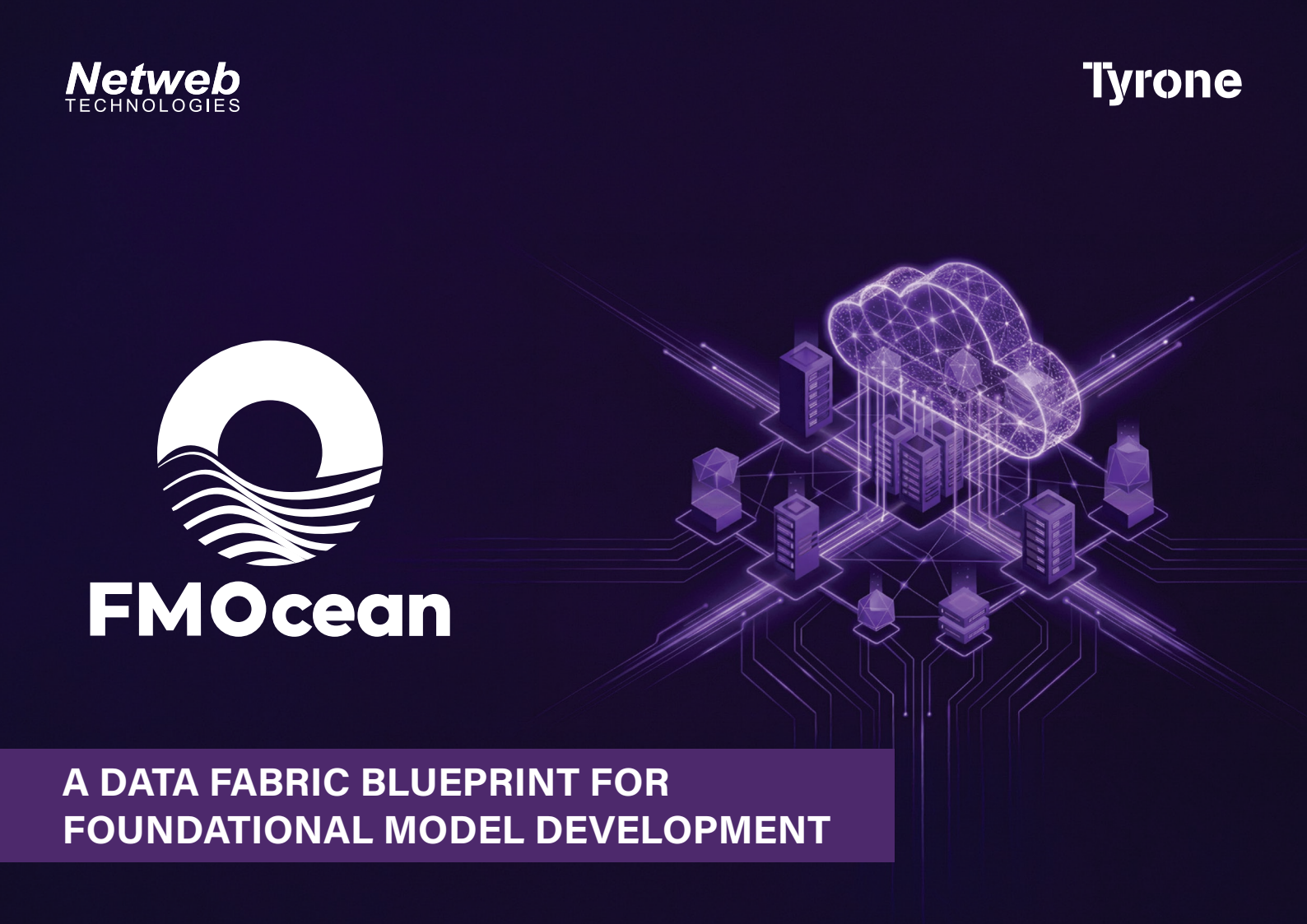
Netweb TECHNOLOGIES

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A DATA FABRIC BLUEPRINT FOR FOUNDATIONAL MODEL DEVELOPMENT

Introduction

Foundation model delivery increasingly fails at the data layer: not because data doesn't exist, but because it's hard to reliably transform diverse, fast-changing inputs into training-grade, reproducible datasets - securely, at scale, across teams.

FMOCEAN is a modular, cloud-native data fabric designed for the FM data lifecycle: unified ingestion (real-time and batch), medallion curation (Silver, Bronze and Gold), governed access, and end-to-end governance & lineage- with focus on delivering solution in the most sustainable way.

The '4Vs' ENGINEERING PAIN that FMOcean addresses



Velocity:
streaming + batch coexist; late arrivals, retries, burst windows, and continuous refresh cycles are normal.



Volume:
pipelines must remain stable as data grows; compaction and efficient layouts become mandatory.



Variety:
structured, semi-structured, and unstructured sources; CDC, events, APIs, and files must converge into consistent dataset interfaces.



Veracity:
model quality depends on trust- dedupe, schema normalization, PII handling, quality gates, provenance, and auditability.

FMOcean Benefits and Capabilities



MULTI-TENANT ISOLATION:

FMOcean ensures multi-tenant isolation and security by default through strict tenant isolation, least-privilege access, full auditability, and automated policy enforcement. It implements a namespace- per- tenant model with individual quotas, enforced network policies, and strong storage boundary controls to maintain secure and compliant operation.



GOVERNED ACCESS FOR EVALUATORS:

FMOcean enables governed access for evaluators and engineers using RBAC, providing secure SQL access, controlled views, and high- concurrency reads overcurated, policy- compliant datasets.



DATA FABRIC FOUNDATION:

FMOcean's data fabric foundation ensures reproducibility and interoperability through versioned tables with time travel and safe rollbacks, along with dataset release artifacts such as snapshot IDs and signed manifests. A central metadata catalog enables consistent policy enforcement, authorization, and seamless multi-engine access across the platform.



GOVERNANCE AND LINEAGE:

FMOcean's governance and lineage veracity plane provides ownership, business glossary, classification, and a searchable catalog, complemented by integrated data quality checks and dashboards. It also captures runtime lineage events with lineage graphs and impact analysis to ensure trust and transparency across data pipelines.



DATA PIPELINE BUILDING (BATCH & REAL-TIME):

FMOcean enables real-time and batch pipeline building by ingesting changes, events, files, and API payloads, while normalizing data envelopes, landing them in the raw zone, and emitting end-to-end lineage from first contact.



MEDALLION DATA CURATION:

FMOcean generate training-grade datasets through a seamless, end-to-end pipeline. The Bronze layer ingests raw, append-only data with full source fidelity, while the Silver layer standardizes, deduplicates, conforms data, and handles PII with governance. The Gold layer produces foundation-model-ready datasets and feature sets-including curated corpora, joins, labels, and train/validation/test splits.

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Why now?

FM programs are shifting from “experiments” to repeatable production - and the bottleneck is increasingly dataset readiness: reproducible releases, lineage, policy controls, and sustainable operations are becoming non-negotiable.

Rust-Native, Energy-Efficient Core

FMOcean goes beyond greenwashing - Rust-first architecture in storage, streaming, and SQL layers slashes overhead and improves energy efficiency without compromising speed.

Industries where FMOcean can be a Game-Changer

- Banking Financial Services & Insurance
- Climate Tech/ ESG Tech
- Life-Sciences & Healthcare
- Logistics & Supply Chain
- Retail & E-Commerce
- Public Sector & Research
- AI & ML Platforms/ Model Providers
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