DATA MESH FOR THE MODERN ENTERPRISE

Capgemini

Accelerated Data Mesh for the Modern Enterprise

Domain Oriented – decentralised architecture.

Creating a culture of data products – brining producers and consumers together.

Self-services and automation – common interoperability and ops framework.

Federated computational governance – key to a data first and data only organisation with Office of the CDO being the enabler.

Data Mesh allows multiple groups within an organisation to operate their own analytics platform whilst adhering to common policies and standards.

The central datahub hosts data catalogue, mesh wide audit capabilities, monitoring, and auxiliary services for automation.

The central data platform group defines blueprints that encompass baseline security, policies, capabilities and standards.

New nodes are instantiated based on these blueprints, which encompass key capabilities to enable enterprise analytics (i.e. Storage, monitoring, key management, ELT, analytical engines, and automation)
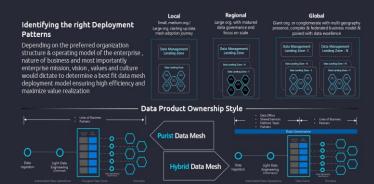
Node instances can be augmented to serve respective business requirements, i.e. deploying additional domains, customising domains and data products within the node.

Nodes are typically split by either org-division, function, or region.
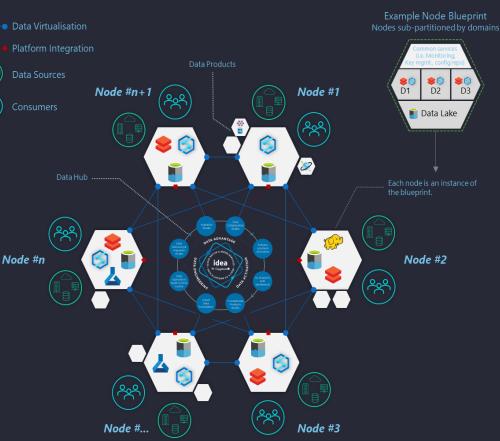
Setting Scope & Vision for Data Domains

Data Product Strategy Framework

DATA OFFENSE — Exploitation data strategy

DATA DEFENSE — Protection data strategy

VALUE TRACKING	DATA DRIVEN BUSINESS MODEL	DATA PLATFORM	DATA MODEL & PLATFORM ARCHITECTURE
DATA SKILLS & CULTURE	VALUE REALIZATION	DATA FOUNDATION	MASTER & METADATA MANAGEMENT
AI INFUSED INTELLIGENCE	INSIGHTS GENERATION	DATA MANAGEMENT AND GOVERNANCE	ORGANIZATION STRUCTURE
ADVANCED ANALYTICS	BUSINESS INSIGHTS	DATA QUALITY	DATA MANAGEMENT & GOVERNANCE PROCESSES

DATA DRIVEN ENTERPRISE

Deployment Pattern

Identifying the right Deployment Patterns

Depending on the preferred organization structure & operating model of the enterprise, nature of business and most importantly enterprise mission, vision, values and culture would dictate to determine a best fit data mesh deployment model ensuring high efficiency and maximize value realization

Local — Small, medium org./ Large org. starting up data mesh adoption journey

Regional — Large org. with matured data governance and focus on scale

Global — Giant org. or conglomerate with multi geography presence, complex & federated business model & poised with data excellence

Data Product Ownership Style

Purist Data Mesh

Hybrid Data Mesh

Data Mesh Governance Model

Users — Decision Maker / Business Users, Data Analyst

Data Product Teams — Solution Architect / Product Owner, Data Scientist, ML Engineer

Domain Ops — Data Manager, Data Ops Squad

Node Ops — Solution Architect / Product Owner, Cloud Engineer

Data Node Group(s)

Digital Security

Data Governance Review

Architecture Review Board

Feedback / Support Op Mech

Architecture Templates (Fast Start using ESA)

- Data Virtualisation
- Platform Integration
- Data Sources
- Consumers

Example Node Blueprint
Nodes sub-partitioned by domains

Common services (i.e. Monitoring, Key mgmt., config repo)

D1 D2 D3

Data Lake

Each node is an instance of the blueprint.

Data Products

Data Hub

Node #1
Node #2
Node #3
Node #...
Node #n
Node #n+1

idea by Capgemini

DATA ADVANTAGE

Accelerated Data Mesh Implementation for Modern Enterprise

CAPGEMINI DATA MESH OFFERING ON AZURE

End to end Data Mesh Implementation in Azure

Phased approach to prepare the foundation – Discovery, Design and Pilot, followed by an iterative/incremental implementation for all data products

Powered by Capgemini's modular, pre-built, pre-tested, plug and play Azure Data Mesh Platform accelerators - IDEA for Azure Data Mesh Platform Accelerators, Data Product Marketplace & Data Trust Foundation and Capgemini 'Active Data Governance' Framework & Tools

Support and scaling of ongoing data mesh implementation

Three phase approach – Stabilize, Optimize, and Transform

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Data Product Strategy & Design Services

Business focused Data Product Strategy and Value Analysis

User centered requirements gathering, using Design Thinking & Business Event Analysis and Modelling (BEAM) techniques

Domain Driven Data Product design and modelling, to establishing a 'bounded context' for decentralized data products

Data Product Marketplace & Data Trust Foundation

Data Product Lifecycle Management & Governance Framework

Tailored Scaled Agile (SAFE™) Product Delivery Methodology

Meta-data driven data discovery. profiling and catalogue

Secure Data Marketplace and Data Exchange Platform

IDEA for Azure Data Mesh Platform Accelerators

Next-gen Metadata driven Federated Data Governance Framework, built on a robust, but flexible prioritization methodology that can be quickly tailored to specific client scenarios.
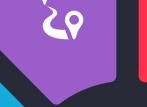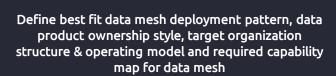
Pragmatic, business benefits-oriented framework developed from hundreds of data governance programs, covering complete range of activities.

"QuickStart" Data Governance methodology comprises numerous practical, hands-on templates, activity catalogues and other accelerators, as well as a maturity model

Capgemini 'Active Data Governance' Framework & Tools

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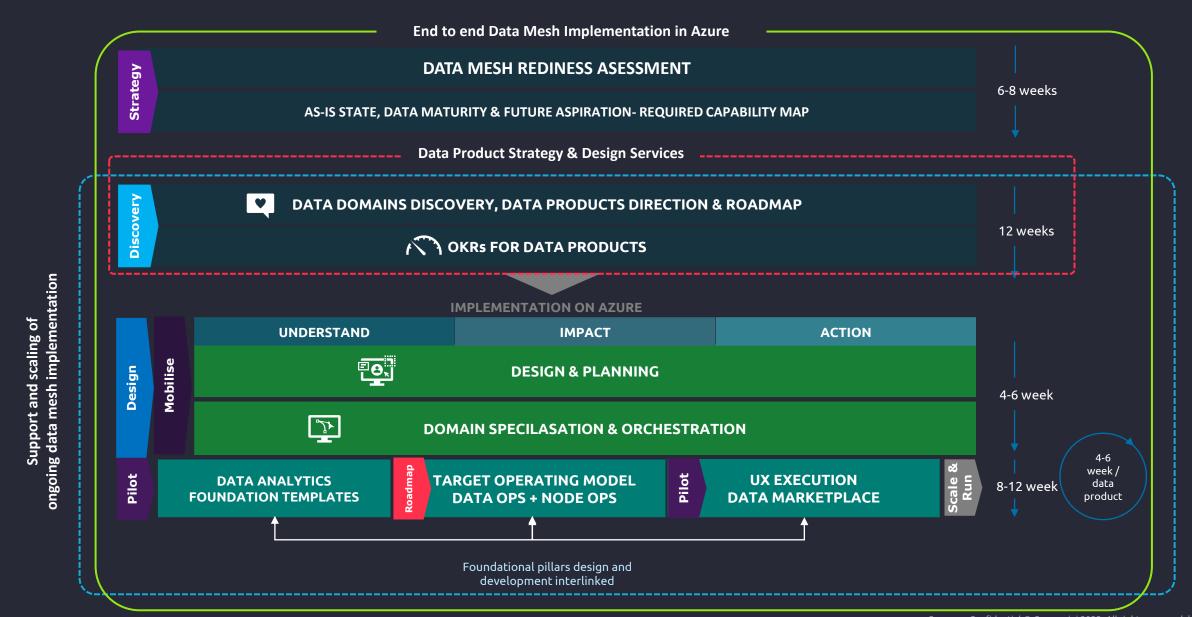
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Data Mesh Adoption Readiness Assessment

Assessment of enterprise as-is capability, data maturity and understanding future aspiration through a series of discovery workshops adoption

Define best fit data mesh deployment pattern, data product ownership style, target organization structure & operating model and required capability map for data mesh

CAPGEMNI OFFERING : DATAMESH IMPLEMENTATION – OP. MODEL

End to end Data Mesh Implementation in Azure

Strategy

DATA MESH REDINESS ASESSMENT

AS-IS STATE, DATA MATURITY & FUTURE ASPIRATION- REQUIRED CAPABILITY MAP

6-8 weeks

Data Product Strategy & Design Services

Discovery

DATA DOMAINS DISCOVERY, DATA PRODUCTS DIRECTION & ROADMAP

OKRs FOR DATA PRODUCTS

12 weeks

IMPLEMENTATION ON AZURE

UNDERSTAND	IMPACT	ACTION

DESIGN & PLANNING

DOMAIN SPECILASATION & ORCHESTRATION

4-6 week

Design **Mobilise**

Pilot

| DATA ANALYTICS FOUNDATION TEMPLATES | Roadmap | TARGET OPERATING MODEL DATA OPS + NODE OPS | Pilot | UX EXECUTION DATA MARKETPLACE | Scale & Run |

8-12 week

4-6 week / data product

Support and scaling of ongoing data mesh implementation

Foundational pillars design and development interlinked

No 'One Size Fits All' – Help you select right fit patterns to excel in your Data Mesh adoption journey

Identifying the right Deployment Patterns

Depending on the preferred organization structure & operating model of the enterprise , nature of business and most importantly enterprise mission, vision , values and culture would dictate to determine a best fit data mesh deployment model ensuring high efficiency and maximize value realization

Local
Small, medium org./
Large org. starting up data mesh adoption journey

Data Management Landing Zone

Data Landing Zone

Data Product | Data Product
Data Product
Data Product | Data Product

Regional
Large org. with matured data governance and focus on scale

Data Management Landing Zone

Data Landing Zone - N

Data Landing Zone - 1
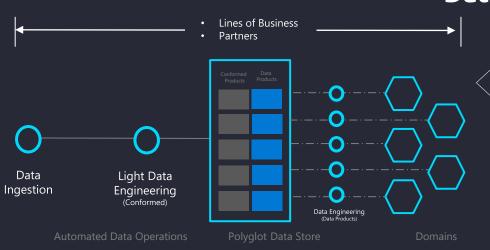
Data Product | Data Product
Data Product
Data Product | Data Product

Global
Giant org. or conglomerate with multi geography presence, complex & federated business model & poised with data excellence

Data Management Landing Zone -1 | Data Management Landing Zone - N

Data Landing Zone - N

Data Landing Zone - 1

Data Product | Data Product
Data Product
Data Product | Data Product

Data Landing Zone – N'

Data Landing Zone – 1'

Data Product | Data Product
Data Product
Data Product | Data Product

Data Product Ownership Style

- Lines of Business
- Partners

Conformed Products | Data Products

Data Ingestion

Light Data Engineering (Conformed)

Data Engineering (Data Products)

Purist Data Mesh

Hybrid Data Mesh

Automated Data Operations | Polyglot Data Store | Domains

- Data Office
- Shared Services
- Platform Team
- Partners

- Lines of Business
- Partners

Data Governance

Conformed Products | Data Products

Data Ingestion

Light Data Engineering (Conformance)

Data Engineering (Data Products)

Automated Data Operations | Data Store | Domains

GLOBAL MICROSOFT ALLIANCE AWARDS AND ACCREDITATIONS

Gold Microsoft Partner — Microsoft

Gold Microsoft Partner — Microsoft | **Azure Expert MSP**

Microsoft — Cloud Solution Provider (CSP)

Awards 2021

- Partner of the Year, GSI Digital Transformation
- Partner of the Year, Financial Services
- Partner of the Year, Analytics
- Partner of the Year, Netherlands (Sogeti)
- Partner of the Year, Spain
- Microsoft Academy - Business Applications, Italy
- Microsoft Sustainability, France

Awards 2022

- Partner of the Year, Power Apps
- Partner of the Year, Germany

Accreditations

- Gold Member Microsoft Partner Network
- Azure Expert Managed Services (MSP) Provider

Advanced Specialization

- Analytics on Azure Specialization
- Data Warehouse Migration to Azure Specialization
- AI and ML on Azure

CAPGEMINI ACHIEVES - ADVANCED SPECIALIZATION STATUS:

Capgemini is the only SI to achieve all the 3 Advanced Specialization Status on Azure Data & AI

- ✓ **Analytics on Azure**
- ✓ **Data warehouse Migration**
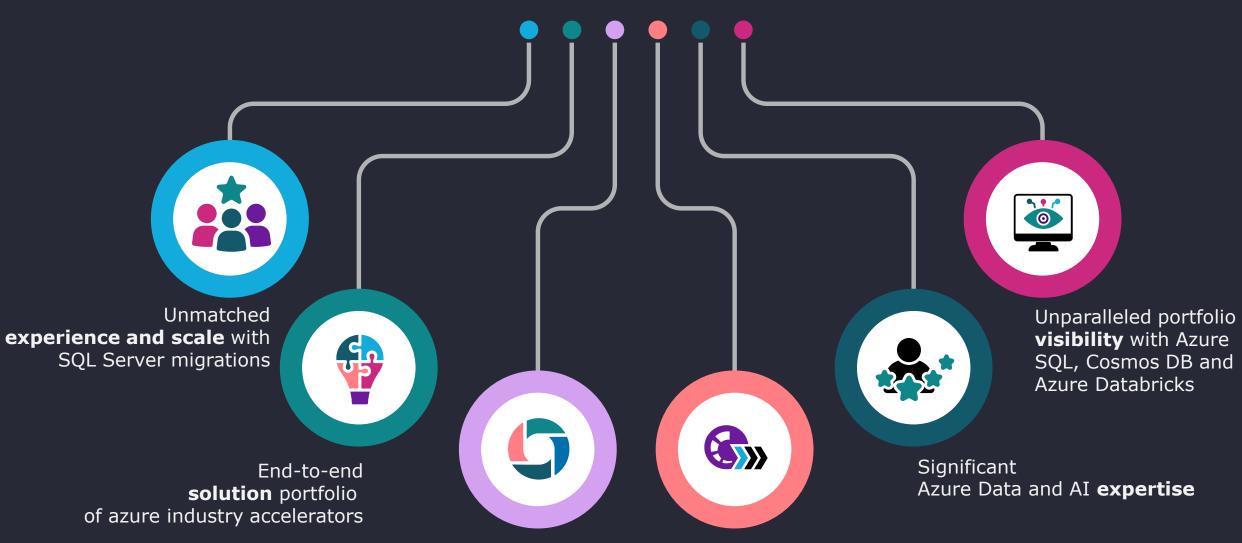- ✓ **AI and ML on Azure**

These specializations validates our deep experience in planning and delivering analytics and DWH migration solutions in Microsoft Azure, enabling customers to use the full breadth of their data assets to help build transformative and secure analytical solutions at enterprise scale.

This shows Capgemini's commitment to Azure Eco System and trust for Microsoft Partnership. This demonstrates Capgemini's broadened capabilities on Azure Data & AI Services.

Why Capgemini is the right Microsoft transformation partner

Unmatched
experience and scale with
SQL Server migrations

End-to-end
solution portfolio
of azure industry accelerators

Focus on cloud-native
data estate modernization

Acceleration with the Capgemini
Cloud Migration Factory Assets

Significant
Azure Data and AI **expertise**

Unparalleled portfolio
visibility with Azure
SQL, Cosmos DB and
Azure Databricks

About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided everyday by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of 325,000 team members in more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fuelled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering and platforms. The Group reported in 2021 global revenues of €18 billion.

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