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Activating Modern Analytics and Governance (MAG) at Scale

With Microsoft's hybrid approach to building a unified analytics ecosystem on Azure combined with our intelligent data platform assets and experience we are helping customers accelerate the creation of value from data, with governance, scale, and accessibility they need now.

Do what matters

Why do organizations struggle with data?

The companies that we are working with typically fall into two categories – they have modernized their big data systems or data appliance workloads in the Azure already or they are just starting their data modernization journey.

What they have in common is that they are struggling with accelerating the creation of value from their data due to data quality, centralized IT models, manual data management, and poor governance that's preventing democratizing data access and speed to insights that's required in the enterprise today.

To help address these challenges, Microsoft developed Modern Analytics and Governance (MAG) at Scales implementation guidance that outlines foundational elements that organizations need to transform their analytics ecosystems, along with practical considerations for executing to achieve value.

We are using this modernization approach and guidance along with practical considerations informed by our experience and platform accelerators to help clients activate the value of their data faster and at enterprise scale.

Your data, my data, our data. Transparency is in, opacity is out

Key Takeaways:

- **Lack of data strategy leads to a siloed ecosystem**
- **Metadata is the knowledge that unlocks the value of your data and promotes transparency**
- **Poor governance prevents democratized data**
- **Manual data management slows time to insights**

What is Modern Analytics and Governance (MAG) at Scale?

It is Microsoft recommended implementation guidance and best practices for an end-to-end analytics ecosystem aligned to data mesh, data fabric, and data hub that includes the following components – Enterprise data strategy, composable solution, technical architecture, and implementation stages.

Enterprise data strategy	Culture transformation Aligned process, people, and technology Autonomous LOBs Organizational change management Platform and data ownership
Composable solution	Enterprise data governance Data management foundation Domains and data products
Technical architecture	Azure Cloud Adoption Framework Intellectual Property (IP) and accelerators by Microsoft and partners
Implementation stages	Discovery, MVPs, and phases

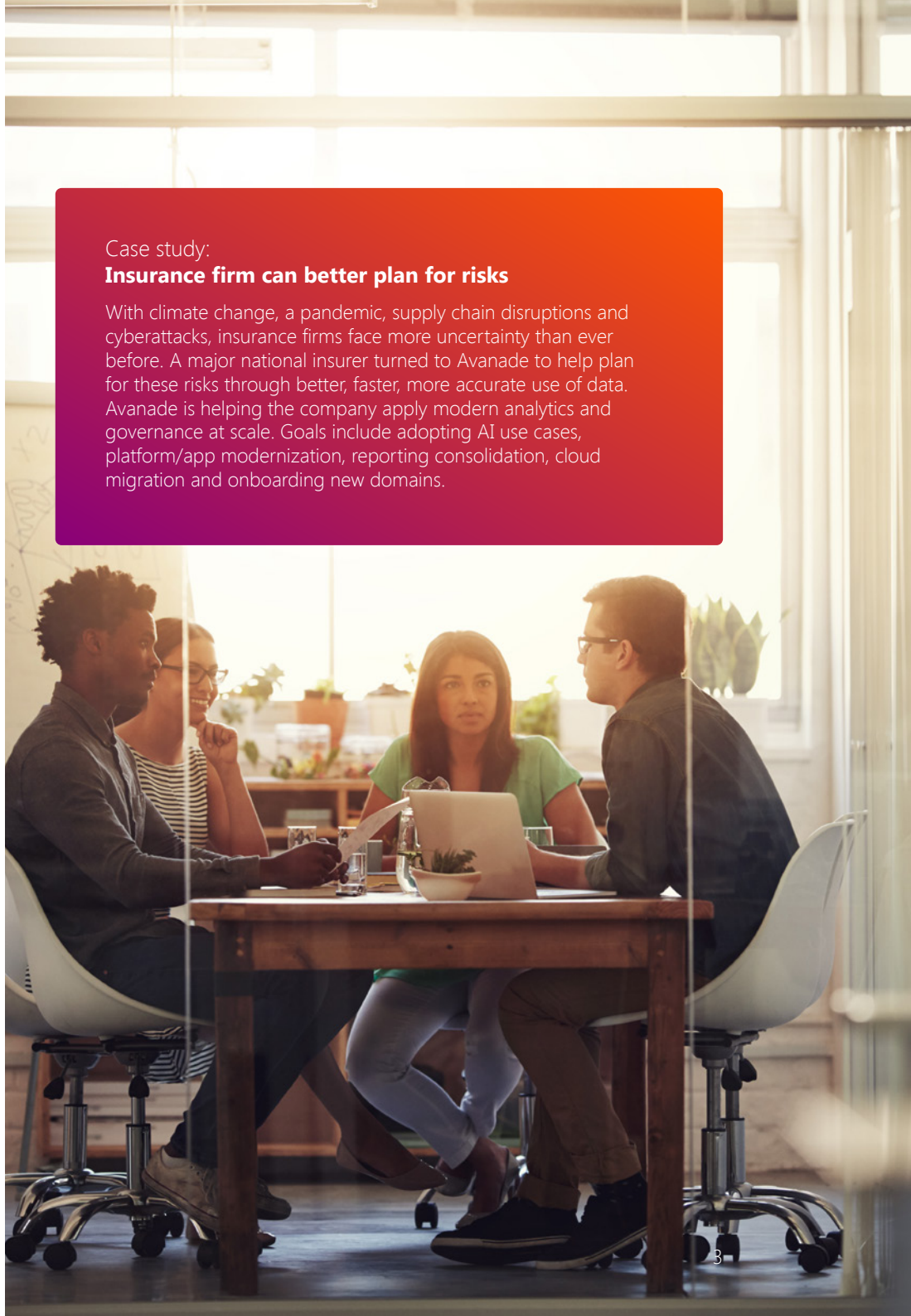
This paper will cover how we are helping clients accelerate modernization of **composable solution components** with **Avanade Azure Intelligent Data Platform assets** to achieve target state faster, including our experience of working with Microsoft on MAG early adoption clients and our recommendations on how to get started.

We will share recommendations on how to put it all together – how emerging strategies, data hub, data fabrics and data mesh, could revamp your enterprise. They each have unique benefits and differences but all streamline and de-silo data architectures.

Finally, we will highlight how CDMC framework and certification lays the groundwork for enterprise data governance as one of the key MAG solution pillars.

Case study:
Insurance firm can better plan for risks

With climate change, a pandemic, supply chain disruptions and cyberattacks, insurance firms face more uncertainty than ever before. A major national insurer turned to Avanade to help plan for these risks through better, faster, more accurate use of data. Avanade is helping the company apply modern analytics and governance at scale. Goals include adopting AI use cases, platform/app modernization, reporting consolidation, cloud migration and onboarding new domains.



Before starting the modernization journey, you need to consider where you are vs. where you want to be

Measuring the impact

The technical value and impact of improved platform and data operations, data management and analytics efficiency is measured with reduced platform and data management cost of ownership. On its own the impact is impressive, but combined with value realization achieved from activating new business features and use cases it is business transformative.

Capabilities	Our Clients' Challenges	Value Creation	Impact by the numbers*
Platform Operations	Legacy platform operations impacting deployment agility and cost to serve	Optimizing Cost To Serve with workflow based platform infrastructure deployment using pre-build terraform modules and YAML templates.	**Improved deployment time by up to 50%** with improved platform operations
Data Operations	Data engineering cost, complexity and long development cycles	Reduced ingestion build complexity and deployment via automation	**Reduced development time by up to 70%** with ad hoc data integration efforts automated
Data Observability	Lack of data ownership, quality and trust leading to high data management costs	Improved data quality, health, lower cost of data provisioning and management	**Up to 3X reduction** in data duplication, improved data health, proactive data quality maintenance
Analytics Efficacy	Central IT is a bottleneck, high lead times for exploration, siloed ways of working and poor data experience	Improved data experience journey, time to insights, and productivity	Improved **time to insights** from **weeks and days** to **hours and minutes**
Data Access Management	High effort, costs and risks with limited data governance, access & security	Streamlining IT data access management and governance to reduce risks and support efficiency	**Reduced operational costs by 80%** with data access management
Data Utilization	Legacy data management and provisioning capabilities leading to high data management costs	Improved productivity, reduced IT cost and shorter lead time for data consumers with Zero ETL and data democratization	**Up to 90% reduction** in data duplication, and **4X improvement** in data utilization

** Illustrative gains based on representative client outcomes and sales research.*

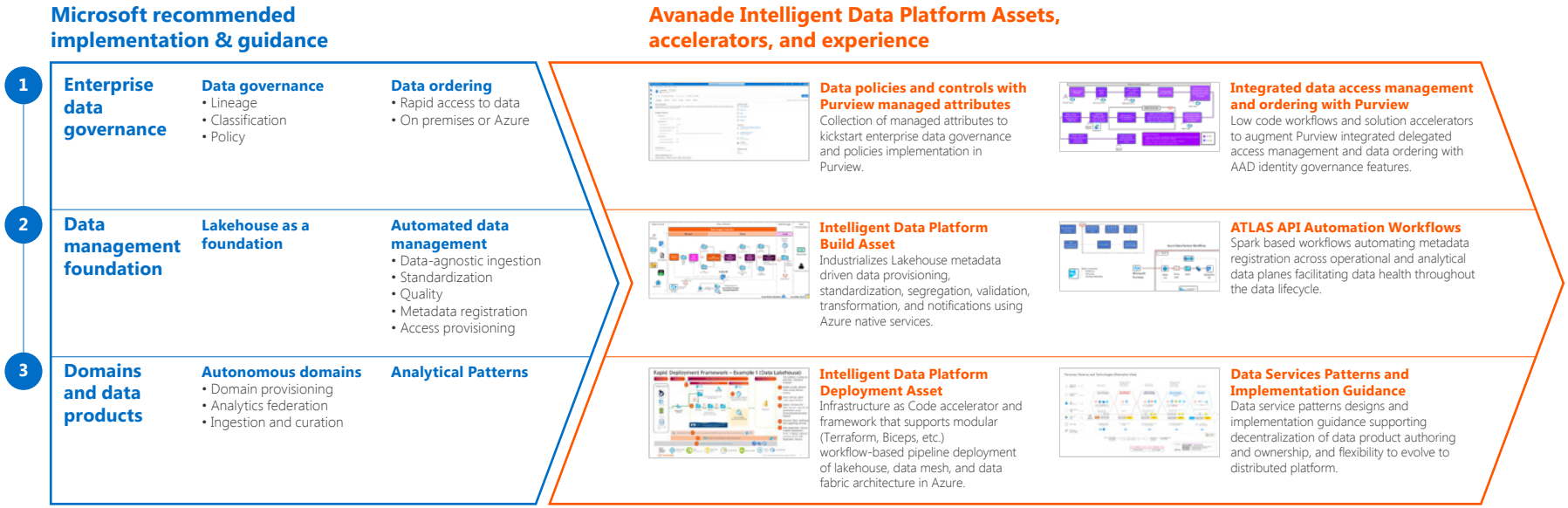
Activating Composable Solution

With enterprise data strategy plan in place, your organization will have the vision and roadmap for how it will tap into data and accelerate value creation. This alignment on how to support aspects of change related to people, culture, and change management will enable the changes in your technology.

The three fundamental (technology) solution pillars of modern end-to-end analytics ecosystem on Azure include Enterprise data governance, data management foundation, and domains and data products.

Microsoft solution implementation guidance combined with Avanade assets, accelerators and real-world client experience is enabling us to help organizations activate MAG modernization journey faster, with impact and technical value measured using KPIs governing the solution component activation priorities. We have designed a set of platform modernization KPIs to help our clients illustrate the value and hard cost savings they can achieve across the platform and data operations, data access management, analytics efficiency, and infrastructure costs.

The MAG composable solution pillars enable both business domain aligned analysts and engineers as well as the IT data foundation teams in your organization. They each consist of several components that can be activated in phases or one by one depending on your priorities. The flexibility inherent in these pillars gives you agility when it comes to implementation and maximizes the use of your existing Azure data infrastructure investments. While each pillar is critical, it is the combination of the three that unlock organizations' digital transformation and data value at scale.



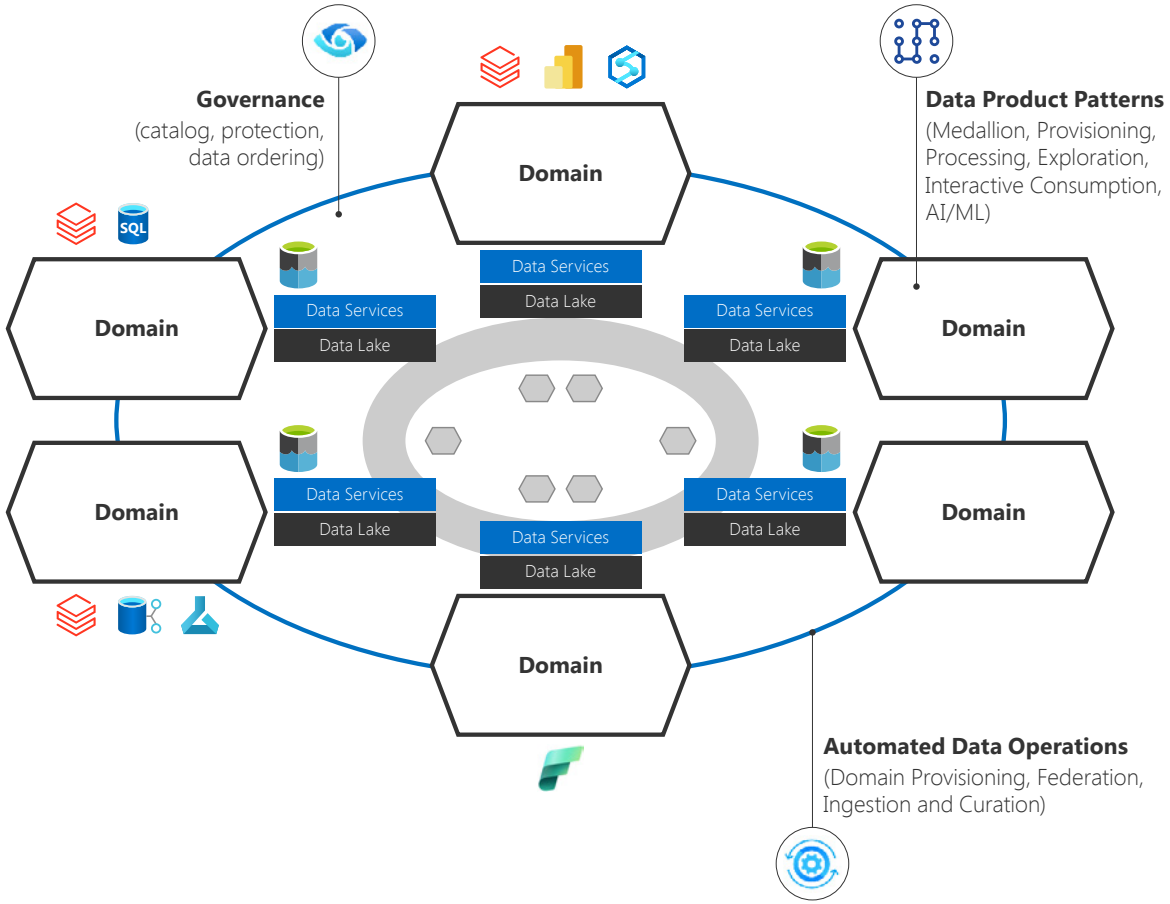
Putting it all together.
Unifying domains, data lakes, and data products

Design guidelines and principles

Modern data foundation and analytical ecosystem is based on set of data services supported by logical data lake that connects business data domains with a common services framework.

It has the following characteristics and components:

- Data lake usability with in-place access of the same data copy by multiple analytical compute engines.
- Delta lake optimized storage layer as the foundation for storing data and tables across distributed data estate using open format like Delta.
- Metadata catalog as the repository for technical, operational, business, and social metadata describing data assets features across distributed data estate, and catalyst for enterprise data democratization.
- Metadata assisted automated data management operations to reduce complexity and level of effort associated with ingesting and standardizing data in data lakes.
- Data services patterns supporting decentralized authoring of derived, consumption, and AI/ML data products with data pro to low code experience available to support needs of different personas in the enterprise.
- Support muti-cloud data and use cases.



Laying the groundwork for better governance with the Cloud Data Management Capabilities (CDMC) framework

The gold standard for governance and security at scale is the Cloud Data Management Capabilities (CDMC) certification from the EDM Council, the world's leading data and analytics trade association. The CMDC framework that's the basis for certification covers 14 cloud data controls and automations, which can empower organizations to define capabilities and controls for safely and responsibly managing data in cloud. Even more, CMDC certification can be a requirement for government entities and the private sector companies that wish to do business with them.

Azure is CDMC-certified, making it an ideal cloud for your data fabric and broader data infrastructures. Even better, Avanade conducted the certification process for Microsoft, together with Accenture, and we can do the same for you.

Microsoft achieves first native Cloud Data Management Capabilities certification

"Every organization we have had the opportunity to engage with is looking to accelerate its use of data to drive its business outcomes. Best practices for how to govern data as it moves to and is born in the cloud were a constant area of discussion and need. This is why we were so excited to partner with the EDM Council and thought leaders around the globe to make data governance practice in the cloud simpler and more approachable, allowing everyone to derive more value from data."

The road to modern analytics and governance at scale

You might think that building modern analytics and governance at scale is an expensive, multiyear process. Think again. We can help you achieve results within months. Our recommended four-phase process includes the following:

Assessment and Design
Four weeks

We assess your current state and design your future state. Our assessment covers architecture, services, deployment, people and organization, use cases and value realization. Our recommendations include high-level design as well as data catalog design, prioritized MVPs and roadmap alignment.

MVP
Three sprints

We help you achieve your first MVP in just six weeks, including deployment of foundation services and onboarding one data product to a domain.

Phase 2
About two sprints

We support the onboarding of more data products and optimize the user interface and operation to be ready for full production. This includes both data governance and data discovery capabilities.

Phase 3
Several months

We continually enhance the data infrastructure with additional data governance, discovery, ingestion and data management capabilities.

Why partner with Avanade?

As a joint venture of Microsoft and Accenture, Avanade has privileged access to Microsoft technology and Accenture industry expertise, as well as our own accelerators, templates and other IP, giving us an ideal foundation to help you achieve modern analytics and governance at scale.

Our credentials include:

- More certified professionals for Microsoft Azure than any other Microsoft partner
- Deep partnership with Databricks, working together to design and deliver an end-to-end enterprise data strategy
- 2022 Databricks Global Consulting & SI Partner of the Year (fourth year in a row) and seven-time recipient of regional Databricks Partner of the Year awards
- IDC MarketScape leader for Microsoft Implementation Services
- 2022 Microsoft Global Alliance SI Partner of the Year for the 17th time

Intelligent data platform foundation Assets

Data Platform Deployment is Infrastructure as Code accelerator and framework that supports modular (Terraform, Biceps, etc.) workflow based pipeline deployment of modern data management and analytics infrastructure (data hub, data fabric, and data mesh) and enables reduced deployment time, improved data platform operations, security compliance and faster time to value.

Data Platform Build is metadata driven accelerator and framework that industrializes Lakehouse data ingestion, data provisioning automation, segregation, quality reporting, automated creation of documentation, and many more services. It is fully Azure compliant and configurable with data Azure PaaS services.

Machine Learning Operations is an accelerator that builds an MLOps platforms in business environments. It allows the end user to train, deploy and monitor M/L projects from development to productive environments by encompassing tools to manage end to end Machine Learning lifecycles.

Get started today

An Avanade Microsoft Fabric Workshop is a great way to initiate or further your data journey, helping to ensure that your investment in modern analytics and governance at scale delivers optimal business value and benefit.

To learn more about our Cloud Data Management Capability Assessment or to engage with Avanade Cloud solution architect contact us today.

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About Avanade
Avanade is the leading provider of innovative digital, cloud and advisory services, industry solutions and design-led experiences across the Microsoft ecosystem. Every day, our 60,000 professionals in 26 countries make a genuine human impact for our clients, their employees and their customers. Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation. Learn more at www.avanade.com.

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Do what matters