TCS accelerates customers transformation through analytics and AI solutions on Microsoft Azure

A company's most powerful asset

With obstacles including data silos and out-of-date solutions, many organizations fail to tap into the full power of their data.

A comprehensive portfolio of services

TCS created an ecosystem of strategy solutions to deliver sustained outcomes aligned to customers' business goals.

Resolving challenges with the power of the cloud

TCS' full complement of solutions on Azure cloud technology is helping customers accelerate their transformation journey.

Tata Consultancy Services (TCS) is an IT services, consulting, and business solutions organization that delivers real results to global businesses, ensuring an extraordinary level of certainty. The company offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering, and assurance services. This work is delivered through a unique Global Network Delivery Model™, spanning 46 locations worldwide, and recognized as a benchmark of excellence in software development.

With more than 130,000 associates, 24,000 of whom are Microsoft-certified, TCS helps enterprises harness cloud technologies to fuel business, innovation, and growth. In collaboration with Microsoft, it enables a next-generation data platform that provides organizations a modern, automated analytics pipeline, from data ingestion to business intelligence.

TCS's investment in research and development and its domain expertise consistently earn recognition from independent analysts as a leader in Microsoft enterprise applications implementation services. TCS is positioned as a leader in both the 2021 Gartner Data & Analytics Magic Quadrant and Everest Group's 2021 System Integrator Capabilities on the Microsoft Azure PEAK Matrix® Assessment.

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Helping customers tap into the power of their data

TCS's journey in analytics and AI is driven by a passion to empower customers to adopt a data-driven culture. Data is a company's most powerful asset. It can enhance the customer experience, innovate ecosystems, minimize risk, and be monetized to deliver increased value.

Nevertheless, many organizations fail to tap into the full power of their data. From data silos to out-of-date solutions, from IT business misalignment to lack of data visibility, the challenges are numerous and diverse. Analyst reports indicate that while customers are looking to use AI and analytics to gain better insight on their data, the success rate is less than 30 percent.

"The advent of cloud computing and prospects for data on cloud are exciting horizons in the journey of data optimization by enterprises," says Jai Mishra, Head, Azure Data Analytics & Insights, Microsoft Business Unit, with TCS. "Data on cloud demands a new comprehensive strategy based on machine-first principles that incorporate characteristics of AI and ML intelligence, agile development, and automation to harness the power of data for Business 4.0 enterprise opportunities."

The TCS Azure Data Analytics & Insights suite of offerings includes cloud governance and cost optimization frameworks to ensure leverage of maximum business value from cloud adoption. The company offers multiple contextual solutions for industry and industry verticals around Azure cloud-native, cloud-ready, and cloud agnostic to meet varied business needs.

Examples of industry-centric data offerings include Retail StoreOps and Sales Foretell, an AI-led retail operations support system and sales prediction model; Customer Knowledge Platform for Retail, providing a real-time, 720-degree view of customer data; a data-based ESG solution for banking that integrates cognitive and AI/ML algorithms; iDataGov for Industry Data Governance powered by Azure Purview; and Insurance offerings using AI-based common data models and Microsoft Industry Data workbench. Others include Azure Auto Ops for automated Azure resource provisioning with governance and FinOps; Accelerated Appliance Migrations on Azure for migration of various data sources; Decision Operations Center Services, a suite of operations service-oriented offerings covering MLOps, DevOps, and DataOps; AI Workbench, with ready AI/ML models; and Intelligent Process Automation on Azure for industry-specific cognitive data extraction, operation visibility, and business process automation.

TCS's dedicated Azure Data Analytics & Insights practice offers a comprehensive portfolio of services and solutions leveraging intellectual property and catering to every business (encompassing both CIO and non-CIO stakeholders) to deliver sustained business outcomes. The company works across industries to unlock the power of organizations' data with its Data Intelligence Impact Cube framework, which enables growth transformation

"Together with TCS, we are helping customers accelerate digital adoption and drive data-driven culture across industries. Through our customer-centric focus we are delivering innovative analytics and AI solutions to help customers create superior business value and performance, faster."

— Simran Sachar, Director of Analytics, AI & Industry, Global Partner Solutions

with cost efficiency. The TCS framework provides a systematic approach combining strategy, business, and technology to help organizations become data driven.

TCS has created an ecosystem of strategy solutions driven by Datom™; an ecosystem using Daezmo™ and its accelerators; and Cognitive Business Solutions powered by Decision Fabric™:

- TCS Datom™ is an advisory framework to develop the right data, analytics, and AI strategy aligned to the customer's business goals.

- TCS Daezmo™ (Data and Analytics Estate Modernization) is a state-of-the-art solution suite combining approaches, methodologies, and machine-first accelerators to build a scalable and future-ready data platform. Daezmo is central to TCS's core analytics and insights offerings, setting the foundation for AI implementation and helping democratize actionable insights across the enterprise.

- TCS Decision Fabric™ is a state-of-the-art, inclusive framework that brings together the power of AI and immersive analytics to build innovative business solutions that deliver value.

"We're at an inflection point: we need machines to comprehend data to augment the needs of humans," says Samik Ghosh, Global Head, Analytics & Insights Data Services with TCS. "Our Daezmo™ suite of solutions and accelerators, in combination with Microsoft Azure, can enable enterprises to aspire to exponential growth leveraging accelerated business outcomes, superlative customer experiences, and leading ecosystems, for differentiation on top of a modernized data estate."

Accelerating business transformation with Azure

TCS's longstanding relationship with Microsoft has benefitted many of the company's enterprise customers. The TCS Microsoft Business Unit helps enterprises leverage the power of cloud, advanced analytics, AI, and machine learning to achieve their transformation goals. Through its Academy for Intelligent Data, the company has a dedicated focus on upskilling and certifying associates in Microsoft data and analytics technologies.

The TCS Daezmo™ suite of solutions helps customers speed up migration of legacy data estates to Azure and accelerate their digital transformation journeys. TCS allows customers across industries to resolve complex business-centric data challenges with the power of cloud. Its next-generation solution accelerators, including TCS Dezypher, further help customers achieve superior business outcomes.

Azure enables organizations of all sizes and across industry verticals to achieve their short- and long-term goals with a proven cloud infrastructure designed to help create and align business and technical strategies. With Azure AI services, organizations can build mission-critical solutions to analyze images, comprehend speech, uncover latent insights, and make predictions using data from across all their business.

The TCS Microsoft Business Unit and Microsoft offer industry-specific, cloud-based solutions that drive the growth and transformation journey across cloud-first and cloud-next horizons.

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TCS has all 18 Microsoft gold competencies and is a Microsoft Azure Expert Managed Services Provider (MSP), experienced in delivering managed services across the end-to-end Azure cloud lifecycle, at scale.

Helping global customers thrive

TCS helps customers across industries drive strategic vision and thrive amidst disruption. A pair of recent, game-changing collaborations tell the story.

A large bank in the Netherlands, with annual revenue of more than €9 billion, provides asset management, commercial, investment, and retail banking services, plus private banking for high-net-worth clients in 14 countries. In addition, it has commercial and merchant banking operations that play a major role in energy, commodities, and transportation markets.

Like many other companies, the bank's data was in silos. Unifying it on a common platform appeared to be an insurmountable challenge. As it saw its data growing exponentially, the bank found that traditional methods of storing and analyzing the data were no longer sustainable or cost effective. It was increasingly difficult to spot inefficiencies or inaccurate decisions on sensitive matters. This proved especially problematic in respect of complex reporting and compliance requirements.

TCS built a data ingestion, DevOps, and testing framework to create and support a modern cloud data warehouse on Azure. The full-fledged solution utilizes Azure platform as a service (PaaS) offering, including Data Lake Store, SQL Database, Data Factory, Event Hub, DevOps, and many others. The result is a unified, secure, and cost-effective data platform, which hosts datasets of close to 1 TB (and growing) across the bank from more than 20 data sources.

The bank's customers benefit by having full transparency on their data, with end-to-end tracking and complete history. Importantly for compliance, the solution uses Azure's enterprise-grade security. The bank's leadership now has greatly improved access to its data, with sophisticated AI and advanced analytics for better business decision-making. Overall, the bank now has greater reliability of its data due to improved data management and is realizing potential savings of €4M by moving to Azure Synapse Analytics, a limitless analytics service with unmatched time to insight.

"Together with TCS, we are helping customers accelerate digital adoption and drive data-driven culture across industries," says Simran Sachar, Director of Analytics, AI & Industry, Global Partner Solutions. "Through our customer-centric focus we are delivering innovative analytics and AI solutions to help customers create superior business value and performance, faster. Data is the most strategic asset of every organization and with TCS, we are empowering organizations to adopt Azure Synapse and the Azure AI platform to bring together data integration, data warehousing, big data analytics, and AI."

A global consumer goods company, headquartered in the United Kingdom, has more than 400 brands. It had 30-plus disparate platforms supporting day-to-day operations, with more than 100,000 IT users, 900 connected sites across 94 countries, and 22 petabytes of data. It used multiple data platforms and was hobbled by siloed data and retrospective-only business intelligence.

Like many other companies, it had multiple reporting environments built over the years. Often the sources of data for reports and analytics were hard to trace and, therefore, frequently the company didn't trust its own data.

TCS and Microsoft partnered to carry out multiple proofs of concept to identify architectural standards and build an improved, unified data platform. The company chose Microsoft Azure to implement its data lakes and processing capabilities. TCS provided services including program management, data ingestion from 120+ sources, DevOps, and a digital factory and data labs.

The digital factory TCS built on Azure has capabilities which include data collection from IoT sensors, data aggregation, visualization, and advance analytics. This digital twin solution improved factory operations by providing real-time information that enabled line operators and factory leaders to make proactive data-driven decisions.

The company's IT spend for licensing and infrastructure costs was significantly reduced by decommissioning existing legacy systems. The cloud data lake has enabled the customer to achieve data democratization and productization of machine learning models across the organization. The company is now better able to derive insights from a central single source of truth. The solution has enabled citizen scientists and empowered business IT while managing data governance and data quality centrally.

A framework for customer success

By identifying gaps in an organization's existing data and analytics programs, TCS, in collaboration with Microsoft, can develop specific approaches to create a prescriptive plan to simplify operating models, set up data governance models, build technology architectures, and provide AI and analytics capabilities to drive business growth.

Going forward, TCS will grow its analytics and AI capabilities, and continue to offer a full complement of solutions around Microsoft cloud technologies, catering to all stakeholders in the enterprise and helping customers worldwide accelerate their growth and transformation journeys. To date, TCS Microsoft Business Unit has completed more than 1,000 successful Azure engagements for 225+ clients, including numerous Fortune 500 companies.