Viacom18 Media

Creating a Personalized Viewing Experience with AI

Overview

Viacom18 Media Pvt. Ltd. is one of India's fastest-growing entertainment networks and a house of iconic brands that offers multi-platform, multi-generational and multi-cultural brand experiences.

In order to deliver more engaging experiences for their millions of viewers, Viacom18 embarked on a journey to leverage AI to create a more personalized viewing experience while identifying opportunities to optimize the business and drive greater ROI.

Customer Challenges

Viacom18 reliance on legacy data warehouse technology that was operationally complex and expensive to scale hampered their ability to build powerful customer analytics on terabytes of daily viewer data generated by 45,000 hours of content.

- **Massive volumes of data:** Difficult to ingest 700GB to 1TB data generated daily.
- **Data processing at scale:** Unable to process 90 days of rolling data within the required SLAs.
- **Infrastructure complexity:** Provisioning clusters for ETL required significant DevOps resources.

Solution

Azure Databricks provided Viacom18 with a unified data analytics platform that modernizes its data warehousing capabilities and accelerates data processing at scale.

- Streamlined infrastructure management with automated cluster management
- Leveraged Managed Delta Lake on Databricks to accelerate queries of large datasets at scale
- Simplified management of data pipelines reducing overall DevOps effort
- Increased data science and engineering productivity with collaborative notebooks

Business Impact

Achieved an overall operational gain of 26%.

Industry
Media and Entertainment

Partner
Celebal Technologies

Tech Stack
- Azure Databricks
- Azure Data Factory
- Azure Blob Storage
- Azure Synapse Analytics
- Power BI

Use Cases
- Personalized Viewer Experience
- Business Optimization and ROI

"Azure Databricks has empowered us to run all of our ETL and machine learning workloads in a single platform. This has greatly streamlined processes and **improved productivity by 26%**, allowing us to take on new use cases that deliver better customer experiences."

PARIJAT DEY, BUSINESS PROCESS ENGINEERING AT VIACOM18

Delivering Engaging Viewing Experiences with AI

Viacom18 Media Pvt. Ltd. is one of India's fastest-growing entertainment networks and a house of iconic brands that offers multi-platform, multi-generational and multicultural brand experiences. A joint venture of TV18, which owns 51%, and Viacom Inc., with a 49% stake, Viacom18 defines entertainment in India by touching the lives of people through its properties on air, online, on ground, in shop and through cinema across 80 countries.

In order to deliver more engaging experiences for their millions of viewers, Viacom18 embarked on a journey to leverage AI to create a more personalized viewing experience while identifying opportunities to optimize the business and drive greater ROI.

The Challenge: Processing Terabytes of Data Quickly

Viacom18 is focused on providing its audiences with highly personalized experiences. The core of this strategy is focused on building powerful customer analytics on daily viewer data. The challenge was the sheer scale of data they were trying to wrangle. With millions of consumers across India, they were tasked with ingesting and processing over 45,000 hours of content on VOOT (Viacom18's on-demand video subscription platform) which easily generated 700GB to 1TB data per day.

Unfortunately, Viacom18's Data Lake, which was leveraging a Hadoop-based platform, was not able to optimally process 90 days of rolling data within their management's defined SLAs, limiting their ability to deliver on their analytics needs.

Furthermore, Viacom18 wanted to reduce its high cost of ownership which resulted from a lack of in-memory capabilities leading to sub-optimal queries and high operational costs. To meet this, Viacom18 needed a modern data warehouse with the ability to analyze data trends for a longer period of time instead of daily snapshots. They also needed a platform that simplified infrastructure by allowing their team to easily provision clusters with features like auto-scaling to help reduce compute costs.
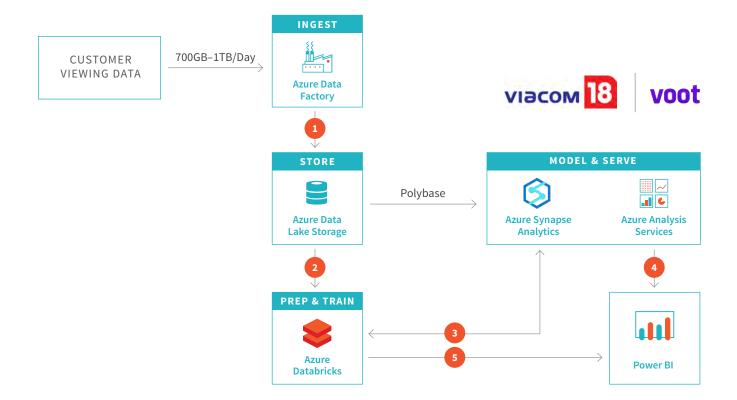
AI at Scale with Databricks

To enable the processing power and data science capabilities they required, Viacom18 partnered with Celebal Technologies, a premier Salesforce, data analytics, and big data consulting organizations based in India. The team at Celebal leveraged Azure Databricks to provide Viacom18 with a Unified Data Analytics Platform that modernizes its data warehousing capabilities and accelerates data processing at scale.

Key features include:

- **Automated Cluster Management:** Cluster management with auto-scaling capabilities to simplify infrastructure management and optimize operational costs

- **Faster Data Processing:** Ability to cache data within Managed Delta Lake on Databricks, resulting in accelerated queries at scale

- **Simplified management** of data pipelines reducing overall DevOps effort

- **Collaborative Notebooks:** Common workspace that increased data science (model training) and data engineering (ad hoc analysis, dashboarding, and reporting) productivity

Solution Architecture

Results

Celebal Technologies and Databricks have enabled Viacom18 to deliver innovative customer solutions and insights with increased cross-team collaboration and productivity. Some of the direct impact realized by the platform are as follows:

Ease of use
Enable engineers to slice and dice large volumes of data and deliver customer behavioral and engagement insights

Cost efficiency
Faster query time resulting in lowering of the overall cost of ownership even with daily increases in data volumes

Faster troubleshooting
Mature orchestration using notebooks resulting in faster turnaround in case of failures

These benefits have helped Viacom18 achieve an overall operational gain of 26%.

ABOUT DATABRICKS

Databricks helps data teams solve the world's toughest problems. As the leader in Unified Data Analytics, Databricks helps organizations make all their data ready for analytics, empower data-driven decisions across the organization, and rapidly adopt machine learning to outpace the competition. The company's global customer base has thousands of organizations including Comcast, Shell, Expedia, and Regeneron. Databricks is venture-backed and founded by the original creators of popular open source projects, including Apache Spark, Delta Lake and MLflow. To learn more, follow Databricks on Twitter, LinkedIn and Facebook.

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