Bayer is a global enterprise with core competencies in the life science fields of healthcare and nutrition. Its products and services are designed to benefit people by supporting efforts to overcome the major challenges presented by a growing and aging population.

Bayer’s global in-house IT competence center for integrated business solutions and business support processes works for all entities within Bayer. Its portfolio comprises the development, implementation, and management of IT-based solutions and end-to-end processes as well as in-house management consulting. Bayer IT devises innovative solutions with a clear user focus.

Life Sciences and healthcare companies serve prescribers with access to and information surrounding newer and better drugs. But in recent years, the need for digital transformation has increased pressure on traditional industry players to deliver customer-centric engagement models, with more personalized communications towards prescribers (physicians) and their patients.

Providing a single source of truth for local marketing and sales teams

Bayer needed the ability to communicate with its many customers in a way that was defined, systematic, and aligned with the company’s multichannel communication. Bayer wanted a solution to provide data quality services for marketing and sales, support interoperability between multiple data sources and IT systems, and manage data integrations for applications hosted in the cloud and on-prem.

In response to its need for customer-centric and multichannel communications, the global IT team from Bayer, in cooperation with external partners like e.g. the Cognizant Technology Solutions GmbH, built a large-scale data hub of approximately 1.5 TB leveraging Talend Real-Time Big Data, which is currently being moved to the cloud. Talend ingests both, cloud and on-premise data sources to provide marketing and sales data to all entities within Bayer. The solution has been rolled out to 86 countries. Based on this data hub, Bayer established a fully integrated, metadata-driven Data Quality solution for marketing and sales. This approach allows checking structures and business content of the data on a daily basis.

“The data hub provides Bayer with a global solution defining robust functionalities between inbound and outbound sources versus data transformation stages,” says Supriyo Chakraborty, Principal Architect for Cognizant. “Talend jobs perform data transformation in various stages of the marketing and sales cycle.”

The data hub consists of three main layers: the inbound layer, the integration layer where transformation takes place, and the outbound layer. For every source, the raw data is ingested by Talend into the inbound area, where it is stored in its original, non-transformed format. The outbound layer sends data to the target systems from various sources via Talend. Required data transformation is performed by Talend in the integration layer, which always has the inbound layer as its source.
“One of the most time-consuming tasks is to discover data sources and data consumers. The data transport is now automated which reduces the amount of discovery work and research for the interface development to a minimum and lets people focus on the core of the business: understanding how business data fits to each other between applications.” Dr. Holger Buchner, Head of Solution Design and Integration

Why Talend?
Bayer connects a huge variety of systems via Talend, including Salesforce Marketing Cloud, SAP Hana, Cvent, Veeva, Gigya, CDIS, Aquia, and others. 230 databases are integrated into the data hub. Not only millions of records get ingested per day from heterogeneous systems into the data hub, but also service API integrations to support interoperability between multiple data sources and IT systems.

Dr. Dana Liebmann, Data Architect for Marketing and Sales at Bayer explains: “We have ingested IT solutions for all Bayer divisions. These include many different systems, connectors, file formats, and data structures.”

The integration solution enables Bayer to set up additional data sources in weeks rather than months when requested by marketing and sales teams, resulting in a 10 percent reduction in operating costs.

“Our data sources were increasingly cloud-based, and we also had to handle the ongoing transition from on-premise to cloud solution successfully,” explains Alexander Watzke, Integration Data Architect for Bayer.

Data quality was another highly relevant requirement. Markus Brinkman, Data Quality Architect, explains: “We take a rules-based approach to data quality like that of the airline industry—an issue happens once, and we set up a rule, so it doesn’t happen twice. With 86 different markets, the data quality approach is crucial and saves a lot of money.”

On the platform, Bayer uses Talend integration jobs not only to ingest operational data from many sources in the data hub, but also the required metadata to run the Business Rules Engine (BRE). Brinkman explains: “The approach spares us from replicating many point-to-point connections to multiple sources, and we make the data available for Business Rules checks right away. We have thus improved the quality of our data by 15 percent.”

Customer-centric multichannel marketing
Multi-channel marketing represents the Life Sciences and healthcare industry's solution to the challenges of achieving improved sales productivity within promotional budgets. By combining traditional and remote digital engagement techniques, more cost-effective connectivity with key stakeholders can be achieved. However, companies face an additional challenge in terms of building closer relationships and trust with prescribers and patients. By implementing customer-centric multi-channel marketing, where the right information is delivered to the right customer in a way that suits them, stronger relationships can be established.

With the data hub as a single trusted data source and data quality measurement in place, local and global marketing and sales teams now have trusted data at hand to refine their communication efforts to their customers.

The industry has historically focused on the frequency of interactions and has taken this mentality to the new channels introduced. The data hub and quality checks help to track how many times the company touches customers and the quality of interactions. Does it translate into a good experience? Are the channels working in synergy and moving customers along on their journey?

Local marketing teams can also better segment their customer base and better target campaigns to customers. They can execute cross-collaboration campaigns that are connected and aligned rather than a piecemeal approach by local teams.

In addition, the data hub and quality rules provide sales teams with a way to improve customer relationship management and key account management by providing account and sales reps with the quality content and information they need to discuss products with doctors.

From a compliance perspective, the data hub and data quality help sales reps and doctors ensure that they are complying with rules governing speaker’s fees, expense transparency, and more. Likewise, the fully integrated solution supports sample management, ensuring reps stay in compliance with rules governing how they provide doctors with samples of medications.