Datalake process orchestration with Cloud Composer

MediaMarktSaturn has engaged b.telligent to support the development of a modern cloud based BI and analytics platform and the usecases based on it.

The challenge
Several different data sets from legacy DWH and other data sources need to be consolidated in BigQuery to provide input data for their dynamic pricing usecase. Since the teams involved work independently of each other, a common interface was needed to control and monitor their big query, data proc, data flow processes and GKE Pods.

The solution
CloudComposer was used to control the loading processes, pre-processing of the datasets, and calculation of automatic pricing models with complex dependencies. In order to make the use of the CloudComposer efficient and accessible to a wide range of users, b.telligent used a self-developed framework as DAG Factory using very simply structured parameter files in yaml format instead of python code.

The results
In this way, content- and time-dependent processes, which are handled with different technologies, could be consolidated in a uniform and manageable tool. Thanks to the graphical representation of the workflows, errors in the process chains can be found and corrected quickly, even when responsibilities are widely distributed.

> **"** The b.telligent consultant worked as a cloud engineer within one of our agile product teams building the MMS analytics platform . Using his in depth knowledge in GCP tools he successfully helped us to automate core platform features by developing a CI/ CD pipeline as well as orchestrating complex data pipelines/ jobs within big query using cloud composer. **"**
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> Martin Angerer, Chapter Lead Analytics, MediaMarktSaturn

MediaMarktSaturn
Retail Group

About Media Markt Saturn Vertriebs-GmbH MediaMarktSaturn is a German multinational chain of stores selling consumer electronics with over 1000 stores in Europe. With chain of stores Saturn it constitutes Media-Saturn Holding, owned by the retail company Ceconomy.

Industry: Retail & Wholesale
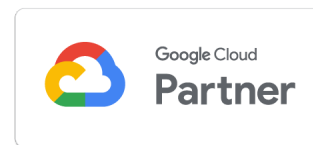
Primary project location: Germany

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About b.telligent GmbH & Co. KG
Technology-independent consultancy specialized in BI, DWH, big data, data science and cloud technologies, serving 300+ customers in Europe since 2004.

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