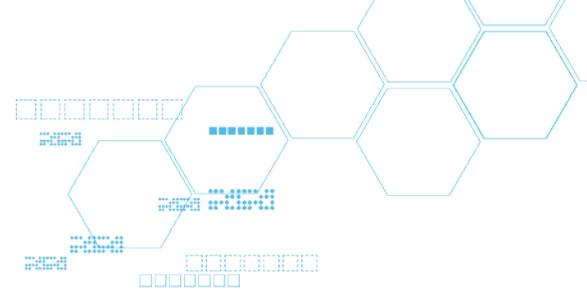




Deloitte.



Transforming big data into big value with **AWS Cloud Analytics**

Organisations today must manage, secure, and make sense of data that is growing at exponential rates. Often, data sits across multiple siloed applications and on-premise databases that can no longer scale to support this sudden increase in data volume, variety, and velocity. As a result, the infrastructure often suffers from inherent problems like higher cost per terabyte, legacy architecture design that is difficult to scale, and an inability to derive insights from data stored across silos.

To help organisations scale for the future, AWS has built a broad range of data management and data analytics capabilities that can help clients deploy scalable, secure, and cost-efficient big data solutions. **Leveraging AWS's scalable cloud platform, Deloitte is helping organisations across a variety of industries choose the right cloud analytics and big data strategy to maximise the value they can derive from their data.**

Maximising network usage and improving on-time performance for Network Rail

Network Rail is the infrastructure manager of the railway network in the United Kingdom. The company saw a real potential to maximise the usage of spare capacity to alleviate overcrowding caused by increased demand. The then-existing approach of railway timetable planning was a cumbersome and inefficient process of manually collecting data from multiple incompatible systems. Deloitte worked with Network Rail's timetable planners to develop an AWS-based analytics system that automates the data integration across ten different systems and rapidly analyses billions of rows of data generated by the railway signalling system.

The end-to-end platform was built on AWS-based secure cloud services including IAM, S3, Redshift, and Data Pipeline. The system helped the timetable planners to improve train punctuality while also significantly reducing the time spent on analysing data. Network Rail realised about £7M of direct benefits from this project in the form of reduced delay payments to train operating companies. The project won the "Best Public Sector Project" award at the UK Cloud Awards in 2016.

Deloitte helps create a 360-degree view of valuable insights by helping organisations capture and analyse full datasets, and remove silos

We have seen a shift in big data cloud services as they move from batch analytics to stream processing like Kinesis, from virtual machines to managed services such as RDS, and server-based services to serverless cloud services like Elastic Map Reduce and DynamoDB. AWS cloud analytics services like these help organisations to improve their analytics and generate new value by leveraging advanced analytics capabilities such as machine learning, natural language processing, and others available natively in AWS.

As big data services continue to evolve, so must your strategy. A cloud-enabled big data strategy can help organisations gain a competitive edge – while reducing costs and enhancing operational efficiencies – by migrating large-scale workloads to big data technologies on the cloud. Failure to correctly address big data challenges can result in escalating costs, as well as reduced productivity and competitiveness. That's where Deloitte can help. We're helping organisations maximise the value they can derive from their big data services investment by establishing a cloud analytics and big data strategy equipped with the right machine learning and cognitive capabilities in their applications. As a result, Deloitte helps organisations lower costs and enhance operational efficiencies.

Contact us

UK Contacts

Peeyush Aggarwal

Partner

peaggarwal@deloitte.co.uk

+44 20 7303 2334

Nadun Muthukumarana

Partner

nmuthukumarana@deloitte.co.uk

+44 20 7303 2744

As used in this document, "Deloitte" means Deloitte Consulting LLP, a subsidiary of Deloitte LLP. Please see www.deloitte.com/us/about for a detailed description of our legal structure. Certain services may not be available to attest clients under the rules and regulations of public accounting.

This publication contains general information only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor. Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.

Copyright © 2020 Deloitte Development LLC. All rights reserved.