

## MBC Group

Using advanced machine learning to improve the customer experience

CGI's machine learning solution helps the world's largest Arabic video-on-demand (VOD) service enhance the user experience.

The Middle East Broadcasting Center or MBC Group is the largest private free-to-air satellite broadcasting company in the Middle East and North Africa region. The company's video-on-demand (VOD) service, SHAHID, has quickly become the largest free, subscription VOD service in the Arab world, with more than 27 million monthly users across the globe, and growing rapidly. In 2019, CGI's operations in Finland helped create and implement a scalable recommendation engine for SHAHID. The aim was to make the service more accessible, grow the user base and retain SHAHID's existing base of millions of users across the globe.

SHAHID offers a diverse selection of Arabic content as well as a vast selection of subtitled and dubbed content from other markets, including a massive content library from FOX Networks Group and Nickelodeon. In early 2019, the company announced major changes to its strategy and level of investment in SHAHID, including investments for developing a recommendation engine for the latest version of its rapidly growing streaming service.



### User experience **is key for growth and retention**

A common problem for streaming services is that the sheer amount of content can simply be too enormous for users to browse. Without an efficient recommendation engine, users become overwhelmed and disengaged. This feature is especially important for mobile device users, where SHAHID has seen its most significant growth and where screen real estate is limited to a few pieces of content at a time.

MBC wanted to extend SHAHID's user base and ensure the retention of current users by improving the customer experience of the service. The company's goal was to drive higher user engagement with a more personalized offering to provide greater value to users.



### From concept to delivery **within a matter of months**

In June 2019, CGI was tasked with creating an engine that uses advanced machine learning algorithms to provide recommendations based on the user's prior viewing experiences and by cross-referencing similar users' content-viewing behaviors and preferences. Due to the massive scale, the solution also required a set of application programming interfaces (APIs) with the ability to handle hundreds of queries per second.

To kick off development, CGI and MBC experts held a workshop along with Amazon Web Services (AWS) experts in Barcelona in June 2019. AWS was chosen as a cloud computing infrastructure because of its ability to scale and flexibility to adapt to changes

within the VOD service offerings, and its comprehensive security capabilities. The technology stack used on top of AWS included Amazon SageMaker, Amazon EMR, Apache Spark, AWS Lambda, AWS Step Functions and AWS API Gateway. During the workshop, the pilot and architecture were swiftly defined and a tight schedule was set to deliver the recommendation engine in time for the launch of a new version of SHAHID in November 2019. CGI worked with MBC to ensure a comprehensive cloud approach that addresses security and data protection.

After a speedy development cycle, the first version of the recommendation engine was tested and further enhanced through early autumn, and the finalized build of the recommendation engine was successfully implemented into the platform in time for the launch. Since then, a team of experts from MBC and CGI have continued further development of the engine and the SHAHID platform now has an evolving recommendation engine that keeps users interested, engaged and coming back for more.

“In this challenging project, the capability of the CGI team to deliver in time and with high quality was one of my smallest worries.”

**Adriaan Bloem**, Head of Digital at MBC

Discover how we help clients deliver more personalized customer experiences through CGI's [advanced analytics solutions](#), and learn how we help clients take a comprehensive approach to balancing risk and value at every stage of their cloud journey by visiting our [cloud services](#).

## About CGI

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world. Operating in hundreds of locations across the globe, CGI delivers an end-to-end portfolio of capabilities, from strategic IT and business consulting to systems integration, managed IT and business process services and intellectual property solutions. CGI works with clients through a local relationship model complemented by a global delivery network to help clients achieve their goals, including becoming customer-centric digital enterprises.



“The collaboration between CGI and MBC experts was seamless and agile, and our successful collaborative effort resulted in a recommendation engine that elevates the user experience of the SHAHID streaming service to a new level. It now offers its customers a more robust experience, by providing a better sense of personal discovery that keeps users engaged. This project is a testament to the level of expertise and agility that we are able to deliver on a global scale.”

**Markus Olenius**, Director of Consulting Services and a cloud data platforms expert at CGI