

MOBI724 ALLOWS DEBIT & CREDIT CARD ISSUERS TO PROVIDE AN ENGAGING, PERSONALIZED AND REWARDING USER EXPERIENCE TO THEIR CUSTOMERS, THUS, ENABLING THE ISSUERS – BANKS TO GENERATE INCREMENTAL REVENUES FROM THEIR CARD PORTFOLIOS.

Mobi724 came to CENG with the 2nd project to validate if switching from CPUs to GPUs would accelerate their AI-driven solutions' efficiency and scalability, in order to implement the findings into the development of next layers of machine learning for data monetization.

TODAY'S BANK ENGAGEMENT PROGRAMS

Modern consumers require convenience, personalized context and control when it comes to receiving services, which applies to reward or redemption offers. B2C enterprises which understand and leverage this powerful and global trend enjoy higher returns.

Banks, which are very conservative by the true nature of their business, lag behind in answering to the rapidly evolving needs of empowered consumers. With a "one size fits all" approach rewards platforms are no longer effective to retain cardholders.

The increase of new communication technologies disrupted how industries interact with their customers, putting stress on age-old techniques and practices of how to engage and retain customers. Conventional catalogues, printed coupons, shipped gift cards, or even digital vouchers which require download and storage are no longer aligned with the expectations of digital-native consumers. If a reward or an offer redemption doesn't work in real-time, restricted to limited choices, or requires a multistep process – it doesn't appeal to a modern customer. Yet, an absolute majority of payment card issuers still relies on reward systems which were designed in the last century – with some cosmetic modifications – but not truly rebuilt, neither are customer-centric.

THE CHALLENGE AND OPPORTUNITY

A number of megatrends are reshaping the payment cards landscape including:

- The rise of empowered consumers, who understand the value they bring to the issuers demanding a fair compensation for their loyalty
- The fierce competition in the electronic payment field, which is more noticed in emerging markets, where the cashless economy is much younger in comparison to developed countries, thus representing a higher upside potential

- The growing willingness in the banking and payment processing industries to collaborate with fintech companies

Over 50% of credit card cardholders are willing to switch cards in search for better rewards. Designing and implementing rewards' systems is not the core business of banks. This creates a material opportunity for visionary and innovative fintech providers who are capable of merging payments and personalized real-time rewards, infused with the digital experience, into a vibrant & financially appealing ecosystem, thus generating incremental electronic transactions. Seeing the opportunity firsthand, a company named Mobi724 Global Solutions Inc. is changing the way how these reward programs function, replacing cost structures with new revenues.



MOBI724 GLOBAL SOLUTIONS

Headquartered in Montreal, Canada, Mobi724 Global Solutions has over 35 employees, and operates in Canada, Argentina, Central America, Mexico, Colombia and the Caribbean islands. Some of their current clients, partners, and integrations include HSBC, RBC, Visa, and Despegar – the largest online travel agency in Latin America covering 20 countries. One of Mobi724's clients, a payment card issuer in Latin America has over 5 million cards in their portfolio.

CENG MEMBERS



HOW IT WORKS

FOR CARDHOLDERS

For cardholders, the process is completely seamless.

After swiping your payment card or using any other electronic payment method linked to a bank account, you immediately receive a notification on your mobile device asking if you want to pay with points. The offer can be accepted with one touch of the screen and a confirmation is sent to your mobile device that the balance is adjusted. Cashbacks and other benefits can be redeemed in an identical seamless and interactive manner.

The reward redemption brings elements of surprise and delight to cardholders; there are no delays or modifications at the point of sale.

FOR CARD ISSUERS: USING PREDICTIVE ANALYTICS

Mobi724's Smart Transactions Processing platform allows its clients to design, launch, track, and measure their payment card-linked marketing campaigns in real-time. Mobi724's platform is a network & channel agnostic which can be deployed anywhere across the globe. Mobi724 uses the power of predictive analytics leveraging its proprietary machine learning engine, in order to enhance the precision and appeal of offers to cardholders – an approach leading to higher ROI, higher transaction volume, and more engaged and happy cardholders.

TESTING THEIR SOLUTION (CPU VS. GPU)

Previously, Mobi724 came to CENG N looking to validate the functionality of their solution within a containerized environment. During this project, as well as its current service offering, Mobi724 uses CPU as the core function of their platform. In this project, driven by growing interest from their business partners, Mobi724 validated the effects of introducing GPU to the AI component (MobiAI), studying if GPU leads to more efficient acceleration than CPU, which has been successfully tested earlier with guaranteed results.

PROJECT SETUP

To test the difference between GPU and CPU effectiveness, their AI component was deployed in the CENG N infrastructure as a Mesos cluster. The project space and the majority of the solution was deployed through a cloud tenancy with GPU access provided through bare metal resources. Within those bare metal resources included a master node, a master node on standby, four worker nodes, and a worker node on GPU to accelerate the AI component of Mobi724's solution, testing just how effective GPU truly was. Refer to the diagram for more details.

AN UNEXPECTED RESULT

The testing results came off as a surprise for both Mobi724 and CENG N. Since GPUs generally function more effectively with AI, it seemed obvious that the GPU results of this test would beat the CPU results of the previous test. However, comparing the two testing results showed that CPU actually performed better than GPU in terms of accuracy, precision, and the time it takes for MobiAI to learn. Making sure that MobiAI works better with CPU, more testing was done to see if the CPU functional components work correctly; which was confirmed, using their partner's data base of over 2.4 billion transactions.

CONCLUSION

Leaving CENG N with valuable information, Mobi724 Global Solutions is now better able to understand how to leverage GPUs within the MobiAI solution for planned future development. Meanwhile, Mobi724 will continue to operate MobiAI using CPU, creating unique customer experiences, driving incremental transactions & generating incremental revenue opportunities.

THE CENG N ADVANTAGE

While at CENG N, Mobi724 was provided with a pre-built testbed made up of bare metal and cloud resources to create a commercial grade containerized environment. CENG N also provided advice on a thorough test plan strategy, separating the CPU and GPU testing into two different CENG N projects. This allowed Mobi724 to compare the results of both tests afterwards with more accurate results.

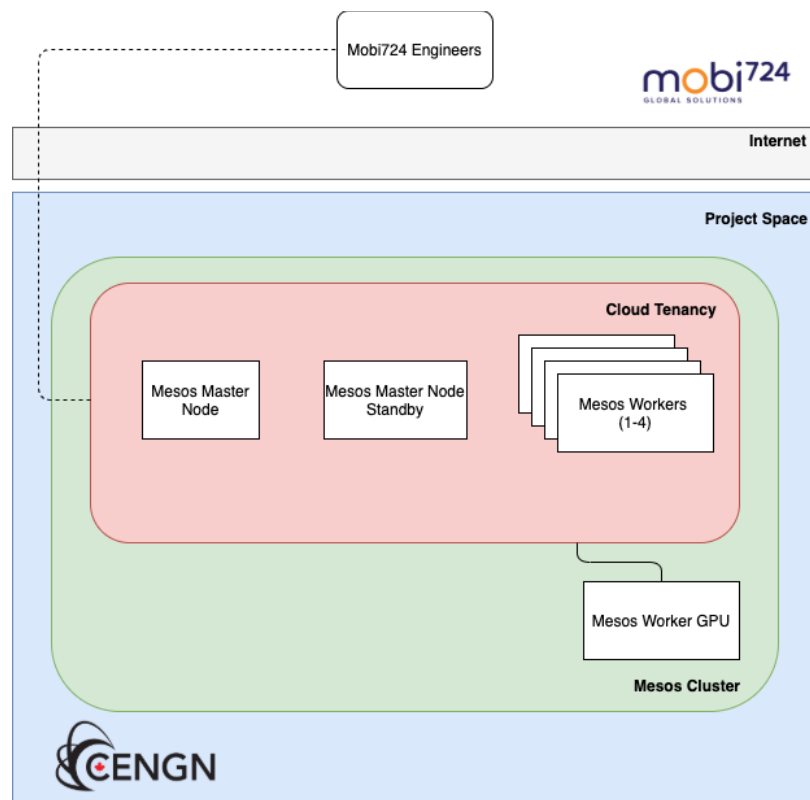


Figure 1: Mobi724's Project Space on CENG N's Cloud