



How ICM Consulting is powering the smart technology that's engaging customers for a leading global jewellery brand

As online shopping gains more traction, traditional bricks-and-mortar retailers have been struggling to attract the same customer traffic they once enjoyed. In order to overcome this, PANDORA, a global jewellery brand, aims to give their customers the best in-store experience possible to encourage repeat custom and raise the value of each transaction. In fact, they are so committed to this ideal that they have employed a Retail Innovation Team whose priority is finding new ways to surprise and delight customers.

The PANDORA team's vision for brilliant customer service was being let down by their software system. An out-of-the-box purchase, the latency of system updates meant some customers had two salespeople trying to work with them while other customers weren't acknowledged at all. This was resulting in a poor customer experience, confused staff, and ultimately, a loss in revenue.

That's when they contacted ICM Consulting.

Yair Iny, the CEO of ICM Consulting and the project manager for the PANDORA business, was given the brief to simply "make the system work faster". However, the ICM team wanted to uncover why the software had such latency issues to see if it was something that could be fixed before embarking on a completely new system build. So they began by conducting a thorough assessment of the technology, plus talking to every stakeholder in the business to ensure they had captured and understood all performance issues and business requirements.

What ICM discovered was that the program was written so that all the devices — from the tablet held by the concierge to the main computer in the store, to the mobile devices carried by the salespeople — were each hitting the server every minute to see if anything had changed, for instance new people coming into the shop or being assigned to a salesperson. Dealing with such an influx of requests meant the server couldn't cope; meaning, updates were delayed in getting across to devices — the system would never and could never provide the immediate responsiveness PANDORA required.

The ICM team decided the best way forward would be to start from scratch. But aware of the previous poor experiences, they designed a system that would immediately update and sync across the multiple in-store devices. Several nifty features brought this to life. One of these was a publisher-subscriber paradigm. This is where data can be published with multiple subscribers, making the system more robust.

Another feature was making the device itself maintain data on what is happening on it. This means the server can see a snapshot of what is on each device so that when something changes, the server knows to only send it to the devices that need to know. Some of the burden of data knowledge is taken off the server, which means it can update devices faster. And by only needing to update devices affected by changes – instead having all requests hit the server at once – devices can be updated in real-time, allowing for automatic responsiveness.

The reason the team were able to design a system with such exceptional service, targeted for their specific client needs, was down to their use of a new programming language, Clojure. Although harder to use than traditional programming languages such as Java, it allows for much less code, which means programs in Clojure run faster and can be built at much greater speeds. It can also be quickly duplicated; meaning, scalability is no longer a problem, and it has the ability to be changed quickly, so as user requirements change, they can be quickly coded in.

In the case of PANDORA, they were able to have a Proof of Concept to test two days after Yair had presented the system architecture. They were also able to change their system requirements without delaying the project timelines such as adding in the ability to differentiate between jewellery cleaning and purchasing and having stores all able to log in from one single sign-on.

While being incredibly fast to get up and running, the system ICM built was also very cost effective to run. Only a small monthly fee was required ongoing to keep the program operational. It means that a high-quality project could be tailored to the available budget.

So if your business is looking for digital systems with immediate responsiveness, if you're struggling with clunky out-of-the-box systems, if you want to build customer retention, or if you want to maximise your revenue, talk to the team at ICM Consulting. With people who live and breathe technology, they'll develop the technology to give your business a competitive edge.

Call us on +61 2 9028 7081 or email us at info@icm-consulting.com.au