



MONGOOSEIM FOR USE IN FINANCIAL SERVICES



TeleWare write cloud based software and have been operating in the UK for almost 30 years. Their single numbering solutions and pioneered cloud-based recording solutions make them the world's leading provider of SIM based compliant recording and the only organisation to offer both SIM and app-based compliant recording. This helps businesses meet regulatory and governance requirements.

One of the UK's largest financial services groups wanted to modernise its working practices. One important consideration was employee choice - they didn't want to mandate a technology; staff had to want it. The group approached TeleWare, who recommended their Re:Call application. Re:Call is a mobile application that operates on android and iOS to provide a second number on a business or personal device for calls and SMS.

CHALLENGE

As the Re:Call product began to roll out TeleWare's product team began investigating which new features would be required to extend the product life cycle and meet the further requirements of their major high street bank client. External research was commissioned and revealed that instant messaging (IM), especially group chat, was the feature most in demand.

TeleWare's developer team were tasked with finding a suitable solution that would meet all of the strict criteria for use by a bank operating in a highly regulated environment. They firstly considered developing an IM only version of Re:Call, without the telephony features, but instead committed to a more ambitious roadmap to integrate into the existing application.



“We wanted to add IM & group chat into our Re:Call application solution to enable our customers to easily and securely chat with colleagues either one to one or via a group chat. Through our collaboration with MongooselM , we were able to seamlessly add this functionality into Re:Call.”

Alan Clarke, Product Team Manager @ TeleWare

SOLUTION

Various technologies were considered and ruled out such as MQTT and the signalling protocol SIP before XMPP emerged as the preferred way to go. After speaking with one of the other major XMPP powered IM solutions on the market they contacted Erlang Solutions to find out more about MongooselM, our full-stack, real-time, mobile messaging platform and scalable XMPP server.

MongooselM emerged as the technology best suited for this use case as, along with all of the great out of the box features offered, there was a time pressure to deliver a solution that could be up and running quickly. MongooselM fitted seamlessly into the existing application which was already set-up for mobile calls, SMS and data handling and met the majority of their core feature requirements as standard.

Where required, TeleWare’s tech team was able to make any code changes quite comfortably such as to allow the Push Notification mechanism to connect straight into the Azure Push Notification Service which was already being used. Most signalling is performed over XMPP and some REST API calls into MongooselM, and some changes were actioned for these requirements: The XEP extension Multi-User Chat (MUC) Light for Group Chat was added as it works especially well for mobile environments. MUC Light gave the Re:Call app much needed control over presence broadcasting for group chats. For financial services firms this level of control and tracking is a must-have.

For monitoring of the app TeleWare use Erlang Solutions’ **WombatOAM** server-side component. WombatOAM is a powerful monitoring platform that comes with a dedicated MongooselM plugin. Again what stands out is how easy it is to install while making minimal demands on your system resources.



RESULT

TeleWare are now using 3 Ubuntu Virtual Machines running MongooseIM, hosted within AWS, with the AWS Load Balancer to route traffic to the VMs for both XMPP & REST APIs. For the backend DB they are using AWS RDS Aurora MySQL.

Erlang Solutions' long established and expert knowledge of Erlang coupled with our background in the telecommunications industry was a key factor in the TeleWare team's decision to opt for MongooseIM. Although they did not have existing in-house XMPP expertise this was not a barrier to using MongooseIM successfully. It was very easy to learn and install even under the time constraints they had. Similarly, having no prior knowledge of Erlang was not an obstacle with Erlang Solutions on hand to provide help-desk support for any issues if required.



**CHECK OUT
MONGOOSEIM
ON GITHUB**

[github.com/esl/
MongooseIM](https://github.com/esl/MongooseIM)

KEY BENEFITS:

- + **Optimal levels of control of source code and hosting autonomy, necessary when working with financial services firms**
- + **Minimal additional development thanks to the out of the box functionality**
- + **Competitive advantage for speed of integration and deployment**
- + **Group chat which enables secure and safe collaboration**
- + **Able to meet the strict FCA security and compliance requirements for banks**
- + **Resilience to the spikes in usage which have occurred due to the pandemic lockdown**
- + **Positive feedback from TeleWare clients based on end-user experience and feedback for the updated app and the IM feature**

“Technically we’ve been able to achieve every feature requested with ease, and in particular, MUC-Light gave us exactly what was required for Group Chat functionality.”

Dave Hodgson, Chief Research Officer @ TeleWare

OUR EXPERTISE



Our team are world-leading experts, with over a decade's experience in messaging technologies including XMPP, MQTT, EMQx, Erlang and Elixir. We can help you build scalable communication systems specific to your needs, so you can start small and grow to match your ambition and imagination. Whether you have thousands of users or billions, we'll make sure they get the message.

With our expert advice, you'll be able to scale to billions of users on a platform designed with privacy at its core. And, because your solution is customised, you will get the optimal solution for your needs, without having to pay for components you don't need. We provide a range of services including development, training and technical support. Our team has worked with global leaders in FinTech, health care, gaming and telecoms and has proven experience in enhancing performance, productivity and collaboration.

ABOUT US

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MONGOOSEIM OFFERS:

- + **Real-time communication**
- + **Chat, one-one messaging and group chat**
- + **Social features to add to app for publishing and commenting on articles**
- + **REST API for backend integration, and for client/server development**
- + **Low failure/downtime**
- + **Excellent end-user experience**
- + **Clean and modular design**
- + **Support for push notifications, a metrics system, and message archive management off-the-shelf**
- + **Easy integration with WombatOAM for monitoring**

Erlang Solutions is a tech consultancy that builds transformative, fault-tolerant solutions for the world's most ambitious companies. By providing user-focused consultancy and high tech capabilities, Erlang Solutions has built strong and long-lasting relationships with clients including WhatsApp, Klarna, Motorola, PepsiCo, Cisco, Ericsson and Adidas Runtastic to name a few.

Contact us to discuss your project general@erlang-solutions.com