# Real-Time Homomorphic Security Increasing ROI and Time to Market for Development Projects

ShieldIO and Oracle solve developer and tester problems with Developer Shield

An Interview with Simon Bain, Chief Technical Officer, ShieldIO

eveloping against real, live data has always been the gold standard for application developers and testers—but security and compliance concerns have continued to move that data further out of reach. To solve this problem, Silicon Valley-based ShieldIO introduced Developer Shield, an innovative solution that allows developers to access and use real, live data securely, revolutionizing the development process while maintaining speed and security levels that until now have been elusive.

### Q: Why is it important—and yet so challenging—for developers and testers to access real data?

A: Developers and testers must have access to data for the application development process to work. They can either develop against real data or create false data that approximates that data. Working with real data is complicated by compliance regulations. Working with false data has its own drawbacks. It can be very expensive to create, and while similar to the real data, it is totally different and can produce skewed results.



Simon Bain, Chief Technical Officer, ShieldIO

#### Q: How does Developer Shield give developers and testers access to real data quickly yet securely?

A: Developer Shield takes the live database and secures it using Al algorithms and keystore-less homomorphic security. As a result, sensitive fields cannot be read in plaintext and it provides a virtualized database that can be fully searched. The developers and testers never work with the live data. The data is protected while development, testing, and analytics are performed. The data is not



mocked up, and that allows for a faster, more robust, and accurate testing cycle and a faster return on investment (ROI).

#### Q: What makes Developer Shield and ShieldIO—unique in the marketplace today?

**A:** First, Developer Shield uses homomorphic encryption, which allows you to search encrypted data without

those changes will never be seen by other developers, and they're not reflected in the original database.

#### Q: How does ShieldIO work with Oracle Cloud Interface to bring great solutions like Developer Shield to joint customers?

**A:** We use the Oracle platform to install, demonstrate, and test our software. To give developers secure access to data,

away from it because they think it's less secure. With Developer Shield and Oracle Cloud Infrastructure together, it's actually more secure—and it's definitely more cost effective.

We work closely with the Oracle Cloud Infrastructure team and we have a great two-way relationship. Our product delivers a secure virtualized instance to our customers' desktops through the cloud. Developer Shield is available for you to try on Oracle Cloud Jumpstart and Oracle Cloud Marketplace.

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decrypting it. We've overcome the speed lag that homomorphic encryption has had in the past, which means that developers and testers can work on the database without delays. Second, because we virtualized the database on the desktop, if anyone makes changes to the data structure,

you have to put it somewhere, and there's where you run into compliance issues. With virtualization and cloud delivery, your data never has to leave your area. That, combined with the cost savings, means that moving to the cloud is a very good option, even for those who have shied