

## **Touch-screen biometrics and e-commerce scenarios**

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As part of the U-PrIM project, we have explored a mechanism for identifying users on mobile devices as they draw an Android unlock pattern on a touch-screen, and how such mechanism can be applied to secure mobile transactions. Our results showed that enhancing Android unlock patterns with biometric information can provide a two-factor authentication method. During the workshop, we plan to present the approach we have taken at calculating the performance of a 'unlock pattern' biometric system, as well as our ongoing work on the creation of suitable user interfaces for secure e-commerce scenarios that utilize this kind of biometric verification system. We'll show how such a system can be used not only as a way to grant access to users into a secure area on their mobile device, so called Trusted Execution Environment (TEE), but also as a mechanism to provide high assurance that the right user performs the transaction. We will explain the method we have followed for data collection in realistic contexts of use and the relevant results from a pilot study.