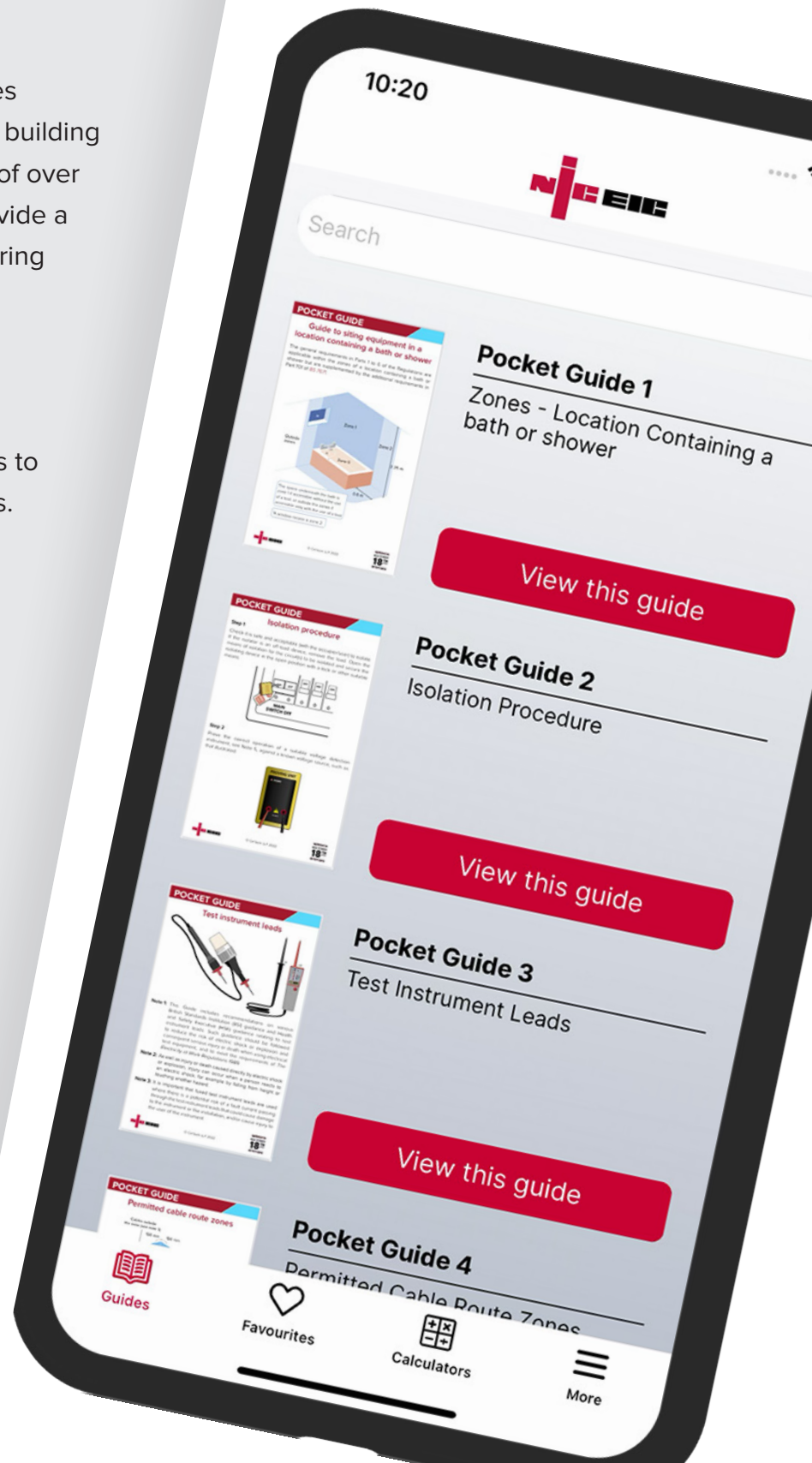# Certsure Pocket Guide and Calculator App
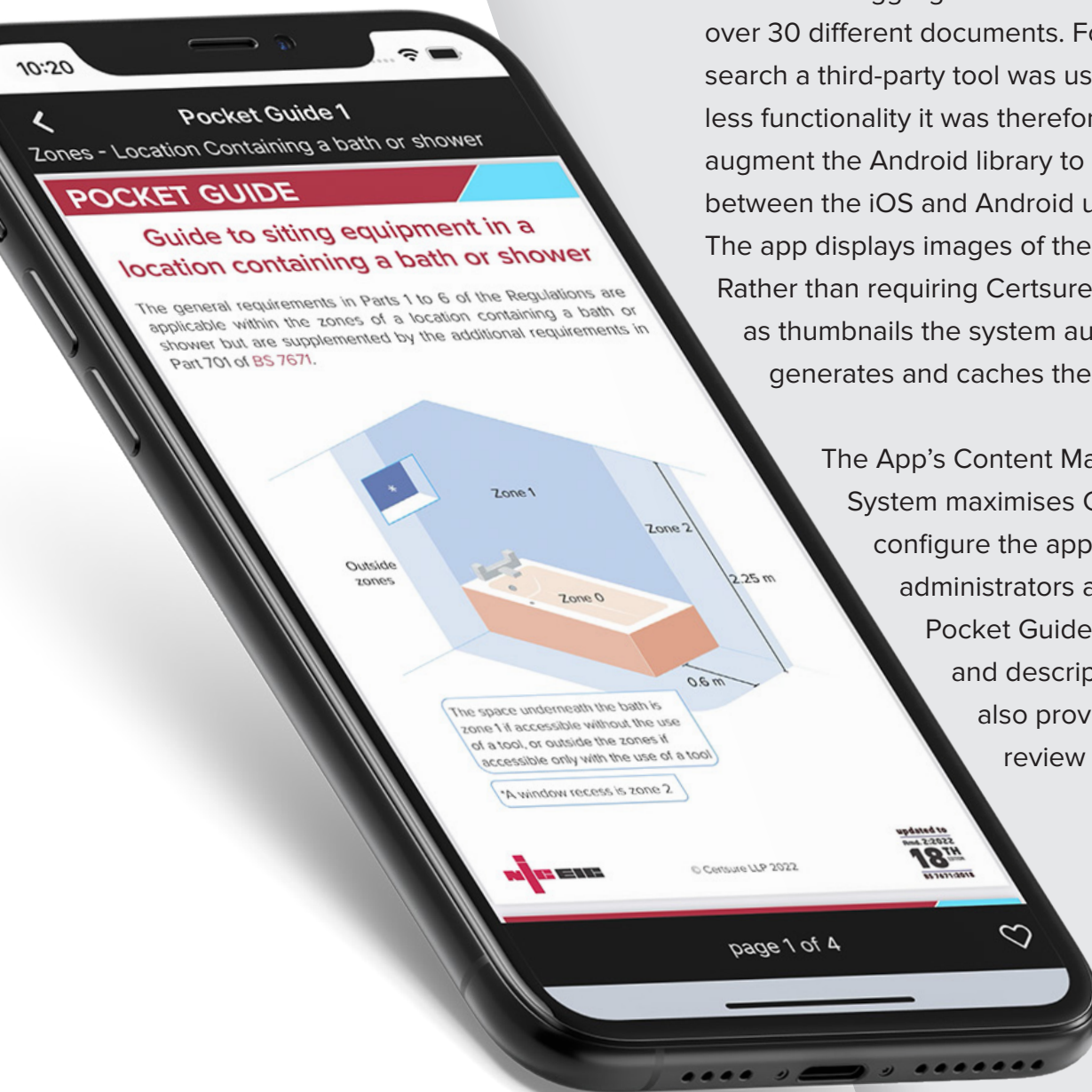*Extended Case Study*

Certsure, via the NICEIC brand, provides accredited professional services to the building services sector and publishes a series of over 30 technical pockets guides which provide a comprehensive set of documents covering rules, regulations and best practice for electrical contractors.

NICEIC Pocket Guides were previously published in paper format with changes to rules and regulations requiring re-prints. This process was costly, inefficient and environmentally unfriendly. Certsure decided to explore digital delivery of pdf versions of the Pocket Guides. While it was possible to simply publish the Pocket Guides to the web Certsure decided that an app would provide a better user experience and provide a platform for additional services. The first example of these additional services are a series of commonly used calculation in-app tools associated with the Pocket Guides including Adiabatic equation and Design Current calculators.

The app has enabled Certsure to stop publishing paper guides.

The app enables users to search for terms within all the Pocket Guides. iOS provides a sophisticated framework for achieving this however development was complicated by the need to aggregate the search results from over 30 different documents. For Android pdf search a third-party tool was used. This offered less functionality it was therefore necessary to augment the Android library to ensure parity between the iOS and Android user experiences. The app displays images of the Pocket Guides. Rather than requiring Certsure to upload these as thumbnails the system automatically generates and caches these images.

The App's Content Management System maximises Certsure's ability to configure the app for example app administrators are able to upload Pocket Guides and edit titles and descriptions. The CMS also provides a portal to review user statistics.

The development incorporated the 'Firebase' solution. This proved highly effective in both providing analytics data and debugging via the crash logging facility.

Calculators were built natively enabling them to function when the device was off-line. The system allows links to specific calculators can be built into the Pocket Guides.

Shortly after the successful deployment of the initial version of the app Certsure and Exploding Phone have started the process of specifying and deploying enhancements to the app.