Incorporating security
into mobile apps

Important innovations in mobile app testing help agencies
meet their digital transformation goals

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The rise of software supply chain attacks has highlighted the importance of monitoring third-party libraries and code. As a first step, agencies should require a software bill of materials (SBOM) for the mobile applications they build and the applications employees use on agency-issued mobile devices. Furthermore, a dynamic SBOM can show the geolocations of API and network connections, which can help agencies know when an application connects or shares data with foreign countries.

Agencies should also embrace modern software development practices and incorporate continuous security testing into their mobile DevSecOps environments to identify issues and fix them in the fastest way possible. This complex process boils down to a few key strategies.

Before any lines of code are written, the software development and application security teams should work together to establish a risk-based policy that features a shared vision of high-quality, secure software. In addition, agencies should automate their mobile app security testing by taking advantage of automated analysis types such as static, dynamic and interactive application security testing and API security scanning. Running automated assessments on every code commit and every push or pull request will encourage adoption and enable further continuous testing.

Agencies might also want to consider partnering with vendors that offer both automated and manual testing later in the pipeline to gain the benefits of continuous testing without sacrificing the quality and depth of manual testing.

Finally, enabling continuous monitoring of apps from the Apple and Google stores provides protection from "unknown app" updates. As a result, agencies gain insight into the security of their own published apps as well as the apps that government employees download for use. ■

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