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Rapid Mobilization of Essential Enterprise Applications

A low-resource, cloud-based platform for easy mobile access to enterprise software programs

This technology is a cost- and time-efficient method for automatically converting a non-mobile computer platform—specifically, a business enterprise application—into a robust and effective mobile application. It mobilizes the enterprise application view by identifying and associating differences between the user-interface elements of the non-mobile computer platform and the mobile device. Differences in display, capability, and associated peripheral devices are compared to common user-interface descriptors from previously stored application views. The technology can then transform the view and send it along with the associated application information to the mobile device.

Conventional techniques for mobilizing computer platforms are costly, time consuming, and often diminish the functionality of the application's computer version. This Georgia Tech mobilization platform is based on a thin-client computing platform that hosts the application in a PC platform and provides an appropriate view with control of the applications from the smartphone. The solution leverages dynamic user interface transformation, meaning the mobile application view and control is dynamically transformed in real time to adapt to the specific mobile device. Additionally, this invention includes intelligent traffic suppression for remotely accessing the application, eliminating redundant information. It also utilizes a secure cloud platform for easy access into a shared enterprise network.

These unique features make this Georgia Tech mobilization technology scalable and user-friendly, demonstrating the potential for rapid mobile access to key applications for business operations.

Summary Bullets

- **Rapid**: Significantly reduces time needed to mobilize an enterprise application as compared to conventional mobilization solutions
- **Cost-efficient**: Leverages a cloud-based, codeless platform that saves on both time and budget
- **Flexible**: Demonstrates potential to efficiently provide mobile functionality for a wide variety of applications necessary for business operations

Solution Advantages

- **Rapid**: Significantly reduces time needed to mobilize an enterprise application as compared to conventional mobilization solutions
- **Cost-efficient**: Leverages a cloud-based, codeless platform that saves on both time and budget
- **Flexible**: Demonstrates potential to efficiently provide mobile functionality for a wide variety of applications necessary for business operations

Potential Commercial Applications

This technology has the potential to significantly improve user access to important enterprise software applications via a mobile device. Rapid mobilization of enterprise applications could advance the operations of any business or organization that uses shared applications for various functions:

- Accounting
- Human resources
- Project management
- Customer relations

Background and More Information

Enterprise applications provide critical business functionalities that are typically customized to an organization's specific needs and shared among a large number of in-network users (e.g., a corporation's employees). Current methods for converting these applications to a smartphone or tablet interface—including thin-client computing—are usually prohibitively expensive and time consuming, requiring significant resources from the business itself. They also often limit a user's access to all of the application's features. This Georgia Tech innovation offers a robust yet efficient solution.

Note: This is just one of several technologies for application mobilization and wireless computing developed by Raghupathy Sivakumar and his team. Click here to see the other available innovations.

Inventors

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IP Status

<p>Patent has issued</p>: US9880796B2

Publications

Trackr: Reliable UI Element Tracking for Application Refactoring Based Mobilization of Enterprise Web Applications, MobiQuitous '18: Proceedings of the 15th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services - November 2018

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