

Dart Transit

Xamarin Mobile Trucking Application



OVERVIEW

Dart Transit is a family owned and operated trucking business, headquartered in Eagan, MN, and ranked as the 3rd largest intermodal asset-based carrier in the United States. In 2017, Wintellect worked with Dart Transit to develop a custom mobile trucking application using the Microsoft **Xamarin** framework, which allows device-native deployment to both the Apple iOS and Google Android platforms via the Apple iTunes and Google Play stores. The application was developed to automate the capture of transportation documents and route them to headquarters for expedited processing and reduced days-receivable. On-the-road expenses incurred by drivers can now also be entered in real-time to reduce the amount of time it takes drivers to be reimbursed.

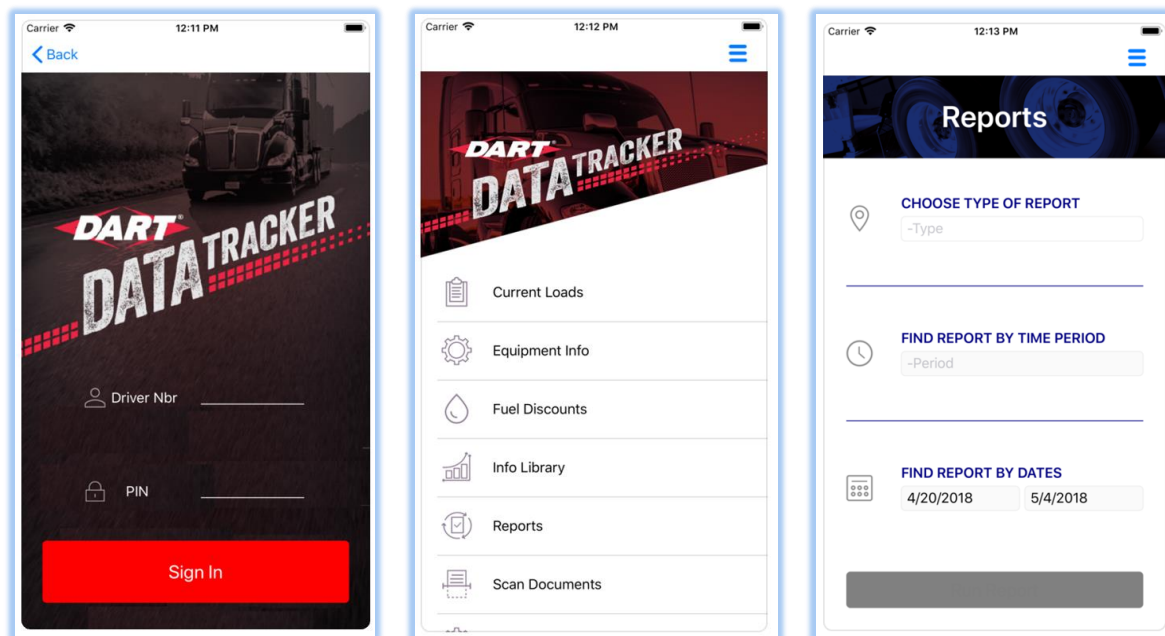
DETAILS

Wintellect first conducted architectural, code, and UX design sessions to support the Dart Transit software team in implementing Dart's vision for the app, including establishing best practices and ensuring that the underlying architecture and project/process setup was in place for the implementation effort to follow. This included:

- Identification of any high-risk requirements or features, and formulation of plans to mitigate that risk.
- Assessment of the security/authentication needs for the mobile application, along with guidance on a recommended security infrastructure.
- Review of UX navigation and interaction models, with selection of the most appropriate given that both Android and iOS platforms would be supported.
- Definition of the basic wireframes and screen flow.
- Identification of areas where custom platform-specific code would be required.
- Guidance on the use of the Microsoft Azure cloud, both for hosting as well as leveraging of other potential services such as AI for image processing.

After the initial plans for architecture and application were complete, Wintellect worked with Dart Transit to implement the agreed upon vision. This effort involved development support across a wide range of areas, including:

- Establishment of a proper Xamarin-based development and build environment.
- App provisioning through Google and iTunes.
- Implementation of fundamental mobile app capabilities, including:
 - Fault-tolerant web service access
 - Local data caching and Notifications support (local or push)
 - Geolocation / Mapping
- Assistance with building the “main flow” screens, such as Login, Landing Page, etc.
- Demonstration of best practices in Xamarin Forms development, such as use of XAML, Data Binding, and the MVVM Design Pattern.



WHY WINTELLECT?

Dart Transit needed a partner that was expert at application and mobile software and architecture, and specifically with use of the Xamarin cross-platform toolsets. They needed to realize a project in a short time-frame – and they wanted to get their own in-house development team ramped up along the way. Wintellect was a perfect fit.

If you are interested in more information about Wintellect developer resources or business solutions, please call 877-966-5528, visit our web site at www.wintellect.com or email us at consulting@wintellect.com.



- Wintellect is a Microsoft Gold Cloud, DevOps, and Data Platform partner.
- Xamarin Premier Consulting Partner.
- Deep expertise in Angular for Modern Web Development.
- Wintellect is a recognized leader in software architecture and implementation on the web, mobile, and cloud platforms.

CONCLUSION

The solution was developed and implemented on a short timeline to meet the delivery requirements of the Dart Transit Development team and to provide a foundation for continued development. The project successfully combined a host of different technologies and services to build a single cohesive solution that delivers on the vision of the client and provides the flexibility needed for the future.