
U.S. ARMY CORP OF ENGINEERS - HYDRA

Optimal Geo, Inc.

Project Specifics

GIS Software/Hardware

- Esri ArcGIS for Desktop (ArcMap, ArcCatalog)
- Esri ArcGIS for Server
- Esri Portal for ArcGIS
- Esri Web AppBuilder
- Esri ArcGIS Runtime for Xamarin SDK

Development

- Visual Studio (VB.NET, C#)
- ASP.NET
- Web Services (ASP.NET, WCF)
- JavaScript
- HTML, HTML5 & XML
- Xamarin Studio

Database Technology

- Esri Geodatabases
- SQLite

Operating Systems

- Windows (7, 10, Server 2012)
- iOS, Android

Contact

Samuel Pacheco-Cherena
Samuel.Pacheco-Cherena@usace.army.mil
703.428.3740



New Wave Geographics (NewWaveGeo) was contracted by Optimal Geo to design and build applications for the Hydrologic Analysis Team of the US Army Geospatial Center. NewWaveGeo designed and built both a web based application, as well as a native mobile application which is supported on Android and iOS.

The web application was a customized application built on Esri's Web AppBuilder and Portal for ArcGIS. Custom widgets were built to meet the requirements which included:

- **Coordinate Conversion:** Ability to convert map coordinates on-the-fly between DD, DMS, MGRS, & UTM.
- **Mobile Map Package Download:** Ability for users of the web based application to generate data for the mobile application, including basemap and feature data.
- **Mobile Map Package Update:** Ability for the users of the web based application to synchronize data collected using the mobile application.

The mobile application built was developed using Esri's ArcGIS for Xamarin SDK and Xamarin Studio using C#, allowing the client to deploy the mobile application to multiple platforms using a single, common code base. The application functionality highlights include:

- Searching
- Attribute Viewing and Editing, including attachments
- Offline data collection and synchronization
- Water Quality Sensor integration

Better Service...Innovation...Value

Chad Yoder, President
561.354.9021
chad@nw-gis.com
www.nw-gis.com