SEISAN

WE CONNECTED ERNST & YOUNG'S GLOBAL WORKFORCE

EY

Objective

Create a streamlined mobile app to connect a multinational workforce that's on the go.

Solution

A custom iOS application and cloud-based database solution capable of facilitating communication between more than 250,000 employees across the globe.

LEVERAGED TECHNOLOGIES

- Native iPhone Application
- Apple Swift Programming Language
- Google Maps
- Microsoft Azure Functions
- Microsoft Azure SQL Server
- Microsoft Entity Framework

PLATFORM INTEGRATION

- Microsoft Azure
- Google Analytics
- TestFlight
- Google Maps

CORE CAPABILITIES

- Geospatial
- Mobile Application Development
- UX/UI
- Systems Integration
- DevOps
- Cloud (Azure)

Ernst and Young (EY) engaged Seisan to build a mobile solution to improve communications within their global workforce. Seisan worked closely with EY to design, develop and deploy a powerful yet intuitive social application known as "Nomad".

As one of the world's largest accounting firms, Ernst & Young needed a global communication solution that was as robust and user-friendly as it was stable and secure. To meet this need, the Seisan team worked with Ernst & Young to create **Nomad** – a powerful, intuitive iPhone app that was designed and developed to facilitate communication between the firm's global network of workers (with a user experience to help ensure that employees would actually use the application).

All backend architecture and data services development by Seisan were audited by Ernst & Young's security team and certified to meet the rigorous standards of a highly respected global enterprise.

Project Nomad was recognized internally as an overwhelming success and was deployed as a beta test in the New York City office. Following a highly successful testing period, the application was rolled out to all EY employees.

SEISAN'S APPROACH / ERNST & YOUNG MOBILE APP

PROJECT OVERVIEW

A primary goals of Project Nomad was to create a solution that would yield a high rate of adoption among Ernst & Young's workforce to increase their engagement. In order to be effective, the solution needed to be particularly appealing for younger employees; a demographic that's become increasingly disinterested in more "traditional" means of corporate communication.

Once the desired set of features for the MVP version of the Nomad application was defined, our user experience (UX) team began the vital task of designing a compelling user interface. From full-color graphic mock-ups to a fully-interactive prototype, this phase allowed the project team to have a tangible means by which interact with the application on their device and provide feedback prior to hard coding (and lessening the chances of needing to retroactively integrate feedback after the launch of the actual application).

During the development phase, our team created user stories to ensure that both the functionality objectives and prototype feedback were addressed as they built the application to the project's specifications. Throughout our Agile development process, daily team meetings were held to review progress, discuss upcoming tasks and identify any potential roadblocks for future tasks. The JIRA project management system was used to track and log project deliverables, resources and the overall production schedule so that no requirement was overlooked.

Finally, our Quality Assurance team created use-case scripts that were used for acceptance testing. The library of these use-case scripts become the acceptance testing criteria for the QA testing phase – an extremely detail-oriented process involving several rounds of testing to ensure all requirements are satisfied and functional, while assuring future revisions will have no negative impact on the project (regression testing).

TECHNOLOGY DETAILS

In the case of Project Nomad, Microsoft Azure was selected as the server side cloud hosting platform utilizing both Azure Virtual Machines and Azure SQL Databases. The Azure Virtual Machines hosted RESTful web services to facilitate data being sent to/from mobile devices. Azure SQL Databases were provisioned to securely store a high volume of application data. In addition to Azure SQL Databases, Azure storage services facilitate the storage of other digital assets. Because the data being stored in this application was sensitive – such as employee locations – all data was fully encrypted in transport and storage, utilizing industry recommended salted encryption techniques.

Seisan developed the native iPhone (iOS) application in Objective-C using Xcode. Seisan's iOS developers implemented a custom user interface that was inspired by corporate branding yet introduced a modern fresh approach. A primary feature of the application was the ability for Ernst & Young traveling consultants to "check in" to offices around the globe.

This was accomplished by a geospatial comparison of the device's current location and comparing it to a database of 700+ office locations in 150+ countries. Users could also search for nearby people via a custom Google Maps implementation in the Nomad application. The location of these users was obfuscated to only show their location as being at the EY office. Privacy settings also allowed the user to become invisible to other users during non-working hours. In addition, Seisan implemented several other notable features such as:

- UIKit Animations to keep a floating text field in view above the keyboard
- Customized UITabBarController to support a higher number of total tabs
- Used device GPS to restrict app functionality to specific locations
- Customizable privacy settings to restrict what data was shown to other users
- Obscured app view from iOS multitasking screen for added privacy
- Custom UX components such as animated selector wheel for easy navigation with simple thumb slide and selection

RESULTS

Project Nomad is a robust location-based communication tool for Ernst & Young's global workforce of over 250,000 traveling consultants. The collective project team from Seisan included roles such as digital strategy, user experience design, iOS development, IT/Infrastructure, security, quality assurance and agile project management.

MAKE CONNECTIONS

EY employees can let friends know they are nearby and connect, or meet new colleagues and expand their network.

GROUP COMMUNICATION

Employees can use in-app messaging to gather with groups or individuals for meetings or off-site gatherings.

CONTACT ANYONE

Find any user's contact information by search, filtering, office location, service line or rank.