



Online Gaming Applications Suite

Porting from Windows to Mac OS platform

Executive Summary

An online gambling company, best known for its online Poker rooms, sought after increasing their online players/users through an available Mac OSX platform user base. The idea was simple – migrate Windows gaming client applications to Mac OSX platform. The target was neat, but extremely unavoidable – start of the World Series of Poker. Yet, the scope, time, and quality variables put together threatened the excellent opportunity on hand. With many man-years of Apple software development & migration/porting experience put to test, Mindfire delivered a comprehensive virtual team setup, putting more than 25 experienced resources on the job to work with the client firm's execution team consisting of Project Coordinators and the acceptance QA team. All development tasks were timely realized, meeting stringent quality requirements. The availability of the Mac gaming application suite resulted in close to 5% increase in new online players.

About our Client

Client World's Leading Listed Online Gaming Company | **Location** UK | **Industry** Online Gaming

Business Situation

Through its market survey on Apple Mac OS user base, the client, a top online gaming firm, unfolded a multi-million-dollar revenue opportunity for itself. With extensive and quality experience on Mac software development on its side, Mindfire's offer was promising. After due diligence, the Head of Technology Research at the client firm chose Mindfire to build the Mac-based client-side applications for the online games offered on their servers. The firm had a serious target to release the Mac versions – before World Series of Poker; all related advertisement campaigns were to ride on the event's popularity. Evidently, substantial budget and foolproof planning were required for definite and quick results.

Solution Details

The Mindfire Solution

With the introduction of Intel-based Mac machines, there was no real alternative to the PowerPlant class library. The native SDKs, Carbon & Cocoa, looked bare bone compared with the MFC codebase on Windows side. After some research and multiple rounds of evaluation, the migration strategy embraced the WxWidgets library. WxMac, designed to port MFC projects, had been refined over the years. For such a UI-intensive application that had less pure-C/C++ code, porting finally became a viable and economical option, sparing far bigger efforts on re-engineering/re-development. Our porting approach required less work/efforts, also making the Mac codebase much easier to maintain. It made it easier to integrate the incremental changes corresponding to the MFC codebase updates that were made after the porting efforts started – this was important to keep up with the progress on new Windows version releases. Besides the initial decisions, the project posed a number of other technical challenges:

- Server controlled dynamic UI that manifested with game-type and account preferences
- Fully customizable and controllable Web browser control
- Frequent screen updates and animation
- High network traffic, over 200 game messages per second
- Profiling results showed serious performance hits – including numerous bitmap drawing actions
- Server messages, user actions and UI updates were critical to game rules





- Solution(s) for features used on Windows, not feasible on Mac

The ominous financial impact demanded the delivery in shortest possible time. Mindfire started with four Software Developers and a Technical Lead, gradually scaling up to a team of 24 Software Developers and 4 QA/Test Engineers.

Achievements

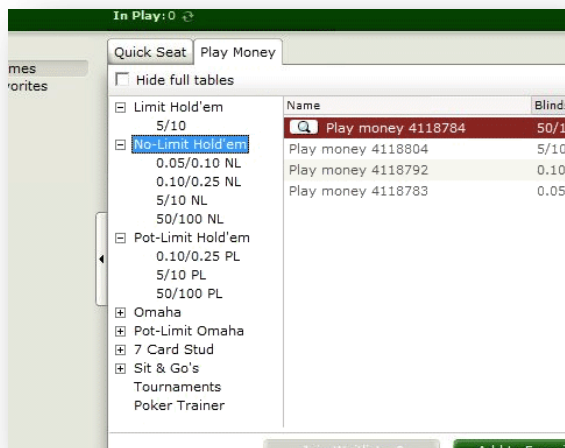
Meeting tough deadlines, Mindfire successfully delivered the project. The release candidate was rigorously tested, made to put through two comprehensive test pass rounds; the test pass consisting of 8000+ test cases. With the benchmark being the Windows version, which had seen a good long, stable run for many years, the Mindfire team could establish the same quality and performance on Mac OSX platform.

Technologies

C++, WxWidgets, Mac OSX, Carbon, WebKit, HTTPS, SSL

Final Results

Software system



Customer benefits

As per the client contact, PartyGaming's MacOSX applications suite led to a 5% increase of new players on their servers.