# Marine Online

## On every device in every clime and place
### by Sgt Brandon N. Collins

Marine Online (MOL) provides many different tools to Marines throughout the Corps. When it debuted in 2002, it was ahead of its time, and over the years different functionalities have been added to meet new requirements. While currently accessible from every device connected to the Internet, the functionalities and user interface were not designed with a mobile device in mind. This can be fixed easily and cost effectively by implementing responsive web design principles into MOL so that the interface is rendered appropriately on a variety of modern devices and screen sizes without the need for an app.

## There Doesn't Need to Be an App for That

Many Marines say that we need to create an app for MOL so it can be used properly on their phones, but these Marines—through no fault of their own—do not have an understanding of application development or its lifecycle. If the Marine Corps decided to create an MOL app, it would have to create four different applications to reach the Marines who use today's major mobile platforms: Apple, Android, BlackBerry, and Microsoft. Three of those four mobile operating systems would also need apps tailored to their tablet environments. After development is complete, the Marine Corps would need to continue allocating resources to maintain the apps, fix bugs, address security issues, create new versions as companies update their operating systems, and incorporate new features. The development lifecycle and associated costs make developing an application impracticable.

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## A Better and More Cost-Effective Way

In contrast to mobile application design, responsive web design is device agnostic: once the changes are made on the MOL server, it automatically works on all modern web browsers. To make MOL's interface responsive, its cascading style sheets must be modified and a JavaScript library added to the master page template. Finally, the correct styles need to be applied to the HTML elements in each template page. This process is slightly intensive at first, but once complete, all menus, fonts, image sizes, text fields, and all other elements will be rendered in a more friendly form—adaptable for all screen sizes and even touch screens.

## System Design and Redesign

The Marine Corps information technology portfolio spans across all warfighting functions, and a quick informal analysis of our web-based systems finds that most were not designed with the proliferation of mobile devices in mind. Fortunately, these systems too can be cost-effectively redesigned. Furthermore, responsive web design should be mandated for any new web-based systems in the current contracting pipeline. This will ensure that we are developing scalable systems and can use any devices the Marine Corps uses.

## Conclusion

By implementing responsive web design, the Marine Corps can make MOL mobile friendly in a cost-effective manner—without the need for an application for each mobile operating system. Furthermore, it would ensure MOL's applicability for years to come. Marines would no longer need to squint at their phones and feverishly pinch their screens to zoom in to interact properly with MOL.

U.S.M.C.



*Four different applications would need to be developed for Marines using a variety of mobile devices. (Photo by LCpl Kasey Peacock.)*