

Increase Software and Systems Success with TWS Agile Application Development

We Deliver Robust Solutions

Three Wire's Agile software development division is a highly skilled, cross-functional team with extensive experience in large scale (500,000+ user), enterprise-level applications. We develop "products with a purpose" and currently support applications custom-built for Department of Defense (DoD) Family Programs serving service members, veterans, and their families.

The software development team is run using Agile principles not just for software development, but also as part of our culture. Our teams are self-organized and empowered to allow for full collaboration and personnel investment in our projects, allowing for better, more comprehensive and flexible software requirements. In contrast, traditional waterfall methods require all requirements documented and gathered up front, despite the fact that roughly 40% of requirements gathered at the beginning of the process are stale by time of delivery. We specialize in helping clients and end users engage in the development process early and often. Regardless of their technical knowledge, we guide stakeholders through the Agile process, showing them functioning software early and often, allowing them to test and provide feedback, and to ensure that system requirements meet what the users need.

Current Contracts

- ◆ Military Community & Family Programs (MC&FP) IT Enclave
- ◆ Military OneSource Case Management System (MOS CMS)
- ◆ AF FIRST
- ◆ eMarine
- ◆ Naval Special Warfare (NSW)
- ◆ Army FASOR
- ◆ AOP

Agile Development Increases Your Chance of Success

Three Wire's Platform Development team runs an Agile software development lifecycle methodology with iterative development of functioning software delivered or demoed to clients and users in as short as two week intervals. Our "Sprints" are time-boxed to ensure that development and functionality is constantly reviewed by stakeholders, allowing for changes and tweaks as users are shown the functioning software.

Three Wire's Agile software development encourages:

- Engaging customers early and often
- Breaking features into manageable chunks
- Building and delivering software fast with a focus on functionality
- Emphasizing User Acceptance Testing (UAT)
- Having constant lines of communication between the Agile team and stakeholders
- Understanding that all things can change, including rules and requirements

18F Agile GSA Award

Three Wire's Agile development practice and culture were recently reaffirmed when we were selected to be a part of the [18F Agile GSA BPA](#). 18F is a GSA consultant that, along with the US Digital Services (USDS), is attempting to revolutionize the way the Government purchases software. 18F's mission is to bring private sector standards into public sector projects, with specific focus on Agile methodologies, rapid, iterative development, human centered design, and end-user research which results in robust, easy-to-use applications that fit today's larger workflows.

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Three Wire was selected by completing three prototypes in a time-boxed 36-hour delivery cycle. Sprints were split into 6 and 12 hours, and a highly Agile, cross-functional team produced prototypes using OpenFDA data. Only 16 companies were awarded a spot on the BPA. The Agile GSA BPS allows Three Wire an exclusive chance to bid on designated Agile projects.

Government Movement Toward Open Source Software (OSS)

Federal agencies are increasingly looking to utilize open source technologies. This is to ensure that software is built using modern standards and can be maintained by a wide variety of vendors rather than just one or a few, as is the case with proprietary Commercial-off-the-Shelf (COTS) and Government-off-the-Shelf (GOTS) applications.

Why Open Source?

Open Source Software (OSS) provides scalable, pre-vetted software frameworks for little to no cost. Unlike commercial or custom-built proprietary software, open source applications are reviewed and updated by a community of developers. This allows for hundreds if not thousands of reviewers, instead of the one team or one company provided by commercial licensed solutions. The communities surrounding OSS are dedicated to working, scalable, continuously functioning, up-to-date and secure software.

It is secure. Communities surrounding each application review OSS, and as a result these developers are more likely to catch potential security holes than one team of custom developers. This can also reduce time-to-production for any application specific or broader security vulnerabilities. The NSA uses the OSS-based Ozone Framework to provide an open, secure platform for a wide array of functionalities.

It is robust. Many OSS applications are scalable to the point of being enterprise level applications with hundreds of thousands of users. Government entities such as the Army, NSA and the White House utilize open source platforms for a variety of sites. Private sector developers like Microsoft are making pieces of their IT toolbox Open Source, providing base code that has been proven scalable and secure.

It has staying power. DotNetNuke (DNN), a platform based on .Net Microsoft technologies is 15 years old. Various other popular OSS applications like Django and Drupal have been around for a many years and are increasing in user ship year-on-year.

It is interoperable and integrates with ease. Most OSS applications are based on modularity, meaning the framework is designed for features of “modules” that are “plug-and-play.” This allows for developers to select “best of breed” modules from community repositories that allow for maximized functionality. Many are also database, and in some cases even data, agnostic, which allows for easier sharing of information between applications, increasingly crucial in the current technology climate.

It reduces costs. When developing from an OSS application, a large set of functionality comes out of the box. In addition to this, most OSS frameworks have module “marketplaces” where modules and functionalities developed by other developers can be downloaded and easily installed in an application for little-to-no cost. These two facts lead to huge savings on purchasing costs and time-to-market.

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Hosting/IT and Security Capabilities

- ◆ Cloud: Amazon Web services
- ◆ SQL Server
- ◆ Physical hosting
- ◆ DIACAP accreditation
- ◆ RMF accreditation
- ◆ FISMA accreditation
- ◆ HIPAA accreditation
- ◆ We are used to working with sensitive information, such as PHI and PII
- ◆ Work with applications hosted in DISA and SPAWAR

Three Wire currently uses the following tools for Open Source Software development:

- DotNetNuke (DNN) Platform for web portal content
- SplendidCRM for Client Relationship Management
- Open Source MS .Net Framework
- Coming Soon: Visual Studio 2015
- MS Entity Framework
- Bootstrap (mobile-first, open source framework)

All of Three Wire's Open Source solutions sit in Cloud hosting environments, particularly Amazon Web Services (AWS) services suite. This includes Amazon GovCloud, which is currently undergoing FedRamp approval. Cloud hosting provides improved performance, simpler troubleshooting and a lower cost than physical hosting. It also allows for applications to be portable and transferable, as needed.

We are currently in the process of migrating applications from legacy technologies to OSS solutions. Three Wire will be one of the first to take OSS enterprise software to DoD secure space, including cloud hosting, with DIACAP and Risk Management Framework (RMF) certification.

Products With a Purpose: Our Past Performance

Three Wire is a Microsoft .Net shop capable of all aspects of web development. We use Microsoft's coding technologies and tools to build web applications, including:

- The .Net Framework, both MVC and ASP.NET
- C# Coding Language (pronounced C sharp, as in the musical note)
- Visual Studio for coding environment and Team Framework Server (TFS) for code, build, and deploy repository
- Octopus for automated deployments
- SQL Server Reporting Services (SSRS)

Our past performance includes the following extensive work with DoD Family Programs:

Three Wire currently maintains the **Case Management System (CMS) for Air Force Family Integrated Results and Statistical Tracking (AFFIRST)**. On-base staff members, often social workers, who help Airmen and their families navigate life in the military, use the AF FIRST application. We are in the process of migrating AF FIRST from legacy Xtendable® technologies to an open source-based solution hosted in a cloud environment.

Three Wire provides technical support for the Army and Air Force Client Tracking Systems (CTS) used for adjudication. Three Wire hosts **The Army Family Advocacy System of Record (FASOR)** in its secure, DIACAP-accredited data center cage at our AIS hosting facility in San Diego, CA. FASOR hosts both PII and PHI, and therefore falls under both DIACAP and HIPAA regulations. Three Wire provides development, Information Technology (IT), and Information Assurance (IA) support for the FASOR application, including ensuring the application remains compliant with both stringent regulations.

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Three Wire maintains content management/web portals and applications to help service members and their families stay connected and get information, including eMarine.org and NSWFamily.org.

We have just finished the Beta version of our own internal Case Management System, the **Advisor Outcomes Platform (AOP)**. AOP is currently being tested by its future users, our VetAdvisor and Marine Advisor coaches. AOP is based on C# .Net open source technologies, and is hosted in the Amazon Web Services (AWS) environment.

Three Wire built and maintains the **IT Enclave for the Military Community and Family Policy (MC&FP)**. The Enclave is a collection of dozens of applications hosted in a secure environment tailored to provide Service Members and their families with a wide array of services, offerings, and information. The Enclave consists of most current software and IT technologies, and is kept to a rigid Information Assurance (IA) standard as well as a 99% uptime and operational applications.

Members of the Three Wire team helped to build one of the cornerstone applications in the MC&FP Enclave, the **Military OneSource (MOS) Case Management System (CMS)**. MOS CMS helps on-base staff members and social workers provide and track services for military families. Three Wire is currently expanding the data management capabilities to help staff members query the metadata that is collected and look for trends or other useful information.