



NAVAL POST GRADUATE SCHOOL PANEL: “Application of an APP Store Software Model within the DoD” Monterey, California



**BG Michael Williamson
JPEO JTRS
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JPEO JTRS

Why do warfighters need Continuing Innovation?

Ever-Changing Threats & Environments

Sophisticated Adversaries with Jamming Capability

Congested RF Spectrum

Complexity of Interoperability

Leaner Defense Budgets Ahead

Industry & Government Must Balance Agility-Security-Interoperability-Affordability-Competition

“We’re not going to out-Apple Apple, but we need to make sure our workforce is exposed to the same technologies and that we offer them the same technologies....We’ve adopted an app-like approach to developing capabilities because we want our workforce to be able to sit down and say, ‘ This app works for me, that app works for me,’ and then plug and play right in front of them”

-Lonny Anderson
NSA CIO
Spring 2011

Why APPs are important to the military

- ▶ Information presented in a manner that users want to see
- ▶ Speed of building and deploying tools
- ▶ Community comfort with development & use of APPs

US Army “APP Store for War”

The screenshot displays the U.S. Army Marketplace website. At the top, the logo "U.S. ARMY MARKETPLACE" is visible on the left, and user options "Hi, self select | Logout | Register" are on the right. Below the logo, there are navigation tabs for "myMarketplace" and "Problem Statement", and a search bar labeled "Search the Marketplace".

On the left side, a "PRODUCT CATEGORIES" sidebar lists various categories with counts: All Categories, Admin Tools (1), Application Development (0), Archiving and Discovery (0), Calendar and Scheduling (0), Customer Management (0), Document Management (2), GeoSpatial Solutions (5), Productivity (3), Social Networking (2), and Training and Management (0).

The main content area features a large banner with the text "FIND THE TOOLS YOU NEED TO GET IT DONE. ARMY MARKETPLACE." and a "Get Started" button. Below the banner, there is a "Recently Added Products" section with a dropdown menu set to "All Marketplace Categories". The first product listed is "Casualty Assistance Program" (v1.05), which provides web-based content for mobile devices.

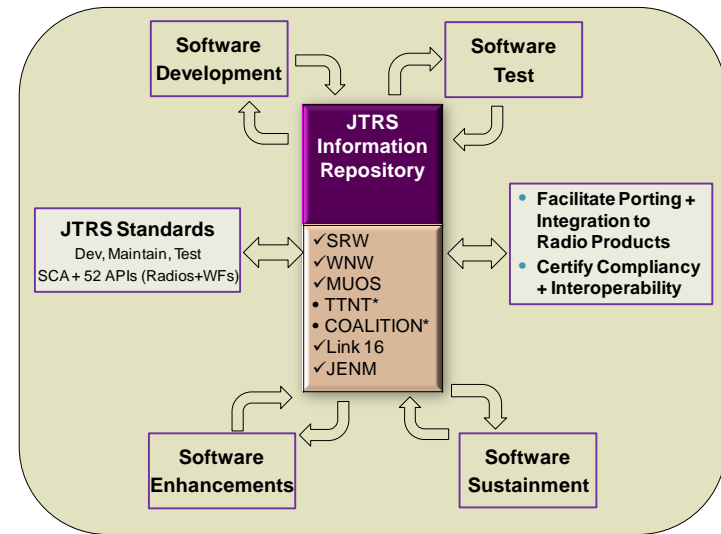
On the right side, there are two sections: "HIGHEST RANKED" and "MOST DOWNLOADED". The "HIGHEST RANKED" section lists "Casualty Assistance Program Training and Management" (60), "LSK Pashlo Medical Productivity" (60), "New Soldier Handbo... Training and Management" (50), and "Family and MWR - W... Social Networking" (20). The "MOST DOWNLOADED" section lists "Versatile Mission Pack Social Networking Asynchrony Solutions, Inc." (1540).

To streamline its operations in a rapidly advancing world, the Army is creating an online app marketplace in the hopes of empowering its soldiers and boosting efficiency.

DoD APPs Requirements

- ▶ An Application Suite
- ▶ Enterprise software
- ▶ Enterprise infrastructure
- ▶ Information worker
- ▶ Content Access
- ▶ Educational
- ▶ Simulation and modeling
- ▶ Media development
- ▶ Product engineering
- ▶ Command & control
- ▶ Intelligence
- ▶ Logistics
- ▶ Administration

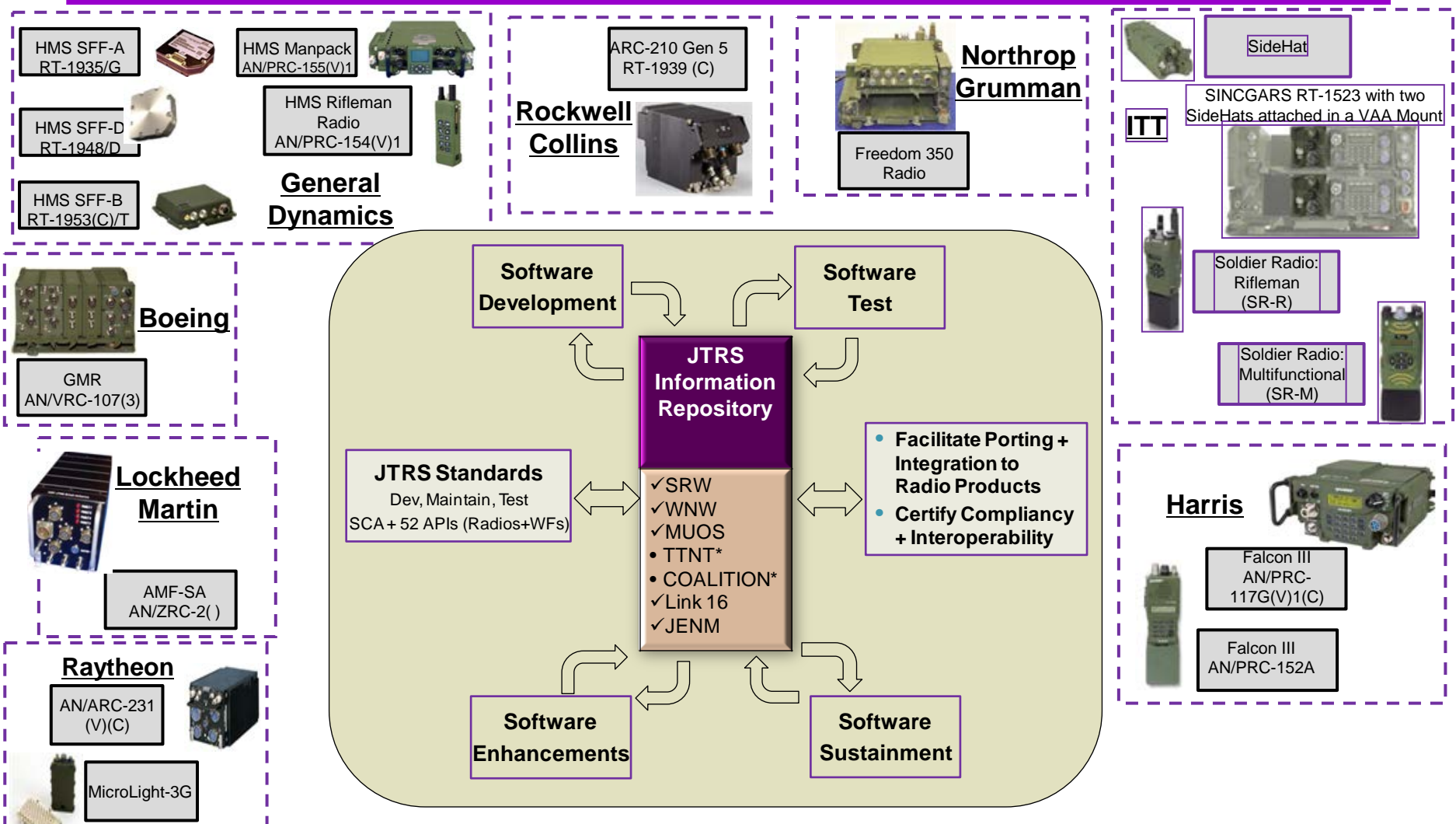
Analogy to Commercial IT: Common Software – Multiple Hardware Vendors



- ✓ Common standards across multiple hardware environments - works across all PCs
- ✓ Developer owned IP rights of software
- ✓ Competition across hardware instantiations
- ✓ Engineered for upgradeability and software enhancements

- ✓ Common software standards across multiple hardware networking radios – interoperable!
- ✓ Government owned IP rights for software
- ✓ Promotes competition across hardware instantiations
- ✓ Engineered for upgradability and software enhancements

Demonstrated Value Today: Interoperable SRW Network



We are performing these essential tasks today: sustaining joint tactical network applications, conducting quick look interoperability tests, qualifying vendors for major integration test events!

APP Development Hurdles

- ▶ Defined and published standards
- ▶ A mature agile-software tools deployment process
- ▶ A centralized systems engineering compliance and certification authority

Challenges to APP Developers

- ▶ Security
 - No current solution for authenticating applications on secure websites
- ▶ Interoperability in a cognitive (SDR) environment
- ▶ Definition of DoD standards
- ▶ DoD bureaucracy in adopting and deploying in new software
 - Current process long and arduous
 - Not standardized among Services
 - May include an NSA compliance and certification process
- ▶ Licensing and government use issues
- ▶ Cost

Given these challenges...