



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



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17 May 2012**

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Report Documentation Page				Form Approved OMB No. 0704-0188	
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1. REPORT DATE 17 MAY 2012		2. REPORT TYPE		3. DATES COVERED 00-00-2012 to 00-00-2012	
4. TITLE AND SUBTITLE Application of an APP Store Software Model within the DoD				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Joint Program Executive Office, Joint Tactical Radio System (JTRS), 33000 Nixie Way, San Diego, CA, 92147-5110				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES Presented at the 9th Annual Acquisition Research Symposium, May 16 - 17, 2012, Monterey, CA.					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 10	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

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”

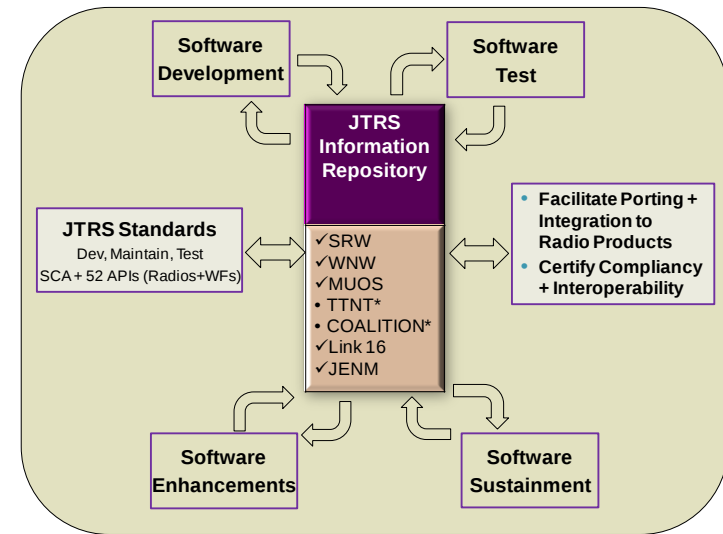


To streamline its operations in a rapidly advancing world, the Army is creating an online app marketplace in the hopes of empowering its soldiers and boosting efficiency.

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



Raytheon

NORTHROP GRUMMAN

Rockwell Collins

HARRIS
assuredcommunications

ITT

THALES

SONY

TOSHIBA



SAMSUNG

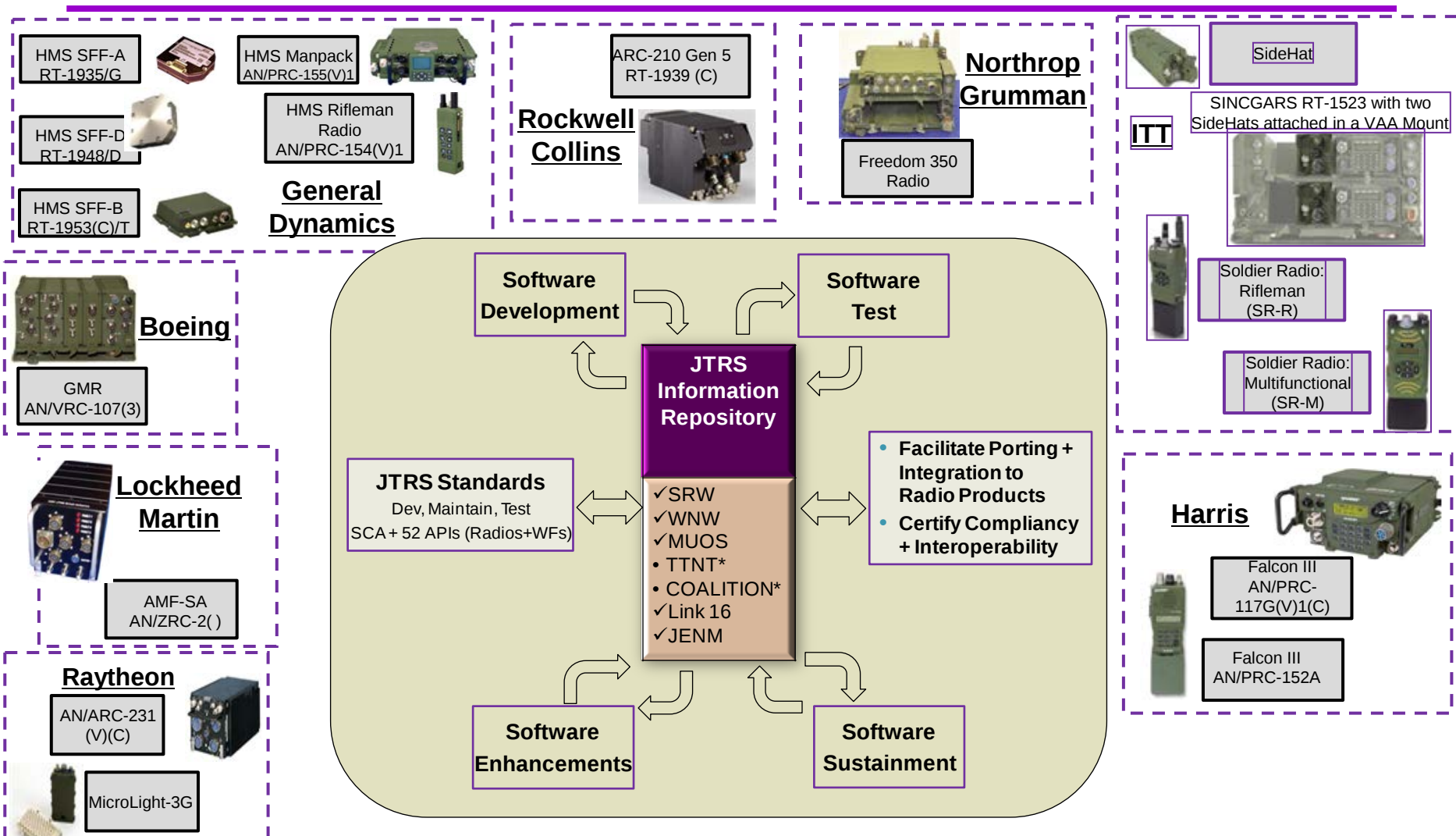
lenovo

- ✓ 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...