

SDR Forum 2011

Defense and SDR Market Trends

Presented by

John McHale
Editorial Director

Military Embedded Systems Magazine
www.mil-embedded.com

DOD Procurement Trends

DOD budget cuts are coming, how big is the question
Could be as high as \$600 billion

Primes and Integrators will get hurt the most as major programs get cut, layoffs have already begun

R& D will get most likely get hit hard. DOD will look to share more development costs with industry. No more power points, show me the product!

Falcon III and JEM radios examples of industry funded products that beat government funded products to market

SDR 2011

DOD Procurement Trends

No more stovepipe systems, open architectures wanted

Platform agnosticism is the new procurement religion

GMR canceled as part of new mantra, Army wants systems that can be fielded faster and at lower costs

Non-developmental items (NDIs) will be norm going forward, programs like JTRS will be a thing of the past

However, HMS, MIDS, and AMF are still on track to be deployed, but needed to get their costs in order

SDR 2011

DOD Procurement Trends

Silver lining for COTS vendors amidst budget cuts. COTS business

grew during Clinton years when R & D was cut

Upgrades and retrofits will depend on COTS

Managing obsolescence and enabling the 80 percent solution

COTS is more about meeting TRLs now, with TRL levels 6 through 7 being the bulls eye

DOD Procurement Trends

Phase	TRL	Maturity Level
System test, launch, and operations	9	System verified by successful mission
	8	System flight-qualified through test
Technology demonstration	7	System prototype demonstrated in space environment
System/subsystem development	6	System demonstrated in relevant environment (ground or space)
	5	Component and/or breadboard validation in a relevant environment
Technology development	4	Components validated in laboratory
	3	Analytical and experimental critical function, characteristic proof-of-concept
Feasibility verification	2	Technology concept and application formulated
	1	Basic principles observed and reported
Basic technology research		

DOD Procurement Trends

SDR opportunities:

NDI for GMR replacement

It will be all about the apps just like the commercial tablet/iPad market

SDRs become mobile sensors

Android-based devices

The biggest challenges going forward is managing power and security

SDR 2011

DOD Procurement Trends

Cognitive Radio: next evolution in radio technology after SDR:

- CR when standardized will ease burden of decision maker for commanders
- It is still in developmental phase, for example spectrum versatility,
- demonstrated. DARPA working on programs as is General Dynamics and others
- Community needs more standardization and security.
- Regulatory issues also need to be sorted out.
- Component technology needs to catch up with CR as it did with SDR. SWaP
- also an issue.

SDR 2011

DOD Procurement Trends

Summary:

- Put the power points away, give DOD a product it can test now, NDIs will be common
- Use TRL as guide, make sure your product can meet TRL 6 or 7 before shopping it around
- Commercial tech will be model for future warfighter tech.
- Build a battery that can last weeks and months without recharging and you will be richer than Bill Gates

SDR 2011

DOD Procurement Trends

Thank You

John McHale

Editorial Director

Military Embedded Systems

www.mil-embedded.com

jmchale@opensystemsmedia.com