



# EDA SDR CONFERENCE Tuusula, Finland 17.-18.11.2009



### Standardization

OLUSTUSVOIMAT | FÖRSVARSMAKTEN | THE FINNISH DEFENCE FORCES





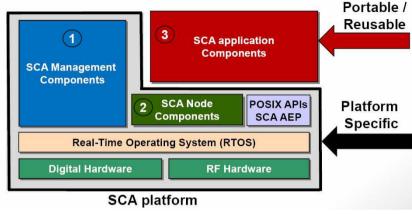
## SCA - near future co-operation





#### **RTOS Middleware**

1. The aim for standardisation co-operation should be as uniform SCA standard as possible between different domains and SDR programs



Source: SMI SDR Conference 2009, Steve Bernier, CRC





- 2. Common APIs are **critical** for waveform portability
  - Radio Device APIs
  - Radio Service APIs
  - Radio Security Services
    APIs

- 3. Processes and defined steps towards common standards and common standardization
- → INTEROPERABILITY IN COMMON OPERATIONS



## SCA - mid to long term co-operation



#### **Future development of SCA is evident:**

- Need for backward compatibility for waveforms
  - Waveform lifecycle is obviously longer than platforms
- Development in electronics and sw-engineering will provide new technical solutions
- Need for cost effectiveness

This workshop is excellent forum for discussions of possibilities to do co-operation between all participants being present at this workshop.

- → INTEROPERABILITY,
- → COST EFFECTIVE WAVEFORM DEVELOPMENT
- → COST SAVINGS







### SDR STANDARDISATION CHALLENGES

- How to achieve and maintain interoperability?
- How to achieve portability?
- How to increase cost efficiency while technology evolves?
- How to organize international SDR standardization?





#### **STANDARDS**

- Interoperability standards
  - WF and Applications related
- Implementation standards
  - SCA + possible extensions
- Security
  - Holistic view
- Others



### Three categories of SDR "standards"



INTERNATIONAL ACTOR

MULTINATIONAL PROJECT / VIRTUAL OFFICE

INDIVIDUAL NATIONS

Unclassified information and unlimited distribution of SDR standards

SCA 2 2 2 release

ESSOR add ons

Unclassified information but controlled and limited distribution of SDR standard

Coalition WFs

Security and Crypto APIS

Classified information, controlled and nationally limited distribution of SDR standard

**JTRS** 

SVFuA

Standardisation fora



**National authorities** 

UOLUSTUSVOIMAT



#### **FUTURE STEPS**



- EDA prestudies on standardisation possibilites and future actions
- Discussions