

Presentation to PSCE December 2008

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### **Presentation objectives**



- Raise awareness of the project
- Introduce who is involved
- Provide an overview of technical challenges
- Introduce the approach to end user engagement
- Introduce the approach to end user requirement capture



### The overarching requirement



- In September 2006 the European Security Research Advisory Board (ESRAB) published a report setting the European security research agenda and the requirements on new communication infrastructures.
- These requirements included security, dependability, enhanced connectivity, transmission of multiple formats and advanced search functions.
- In response to these ESRAB requirements, the FP7 collaborative project SECRICOM was initiated and will create and demonstrate a secure communication platform for crisis management in Europe





PROGRAMME

### Project history

- Summer 2006 initial meeting and discussions
- Winter 2006/07 creation of consortium
- Spring 2007 initial submission of project
- May 2007 improvement of proposal
- 30th May 2007 submission of SECRICOM (218123)
- September 2007 pass hearing
- December 2007 started negotiations
- June 2008 completed negotiations
- August 29<sup>th</sup> 2008 contact signed
- 1<sup>st</sup> September 2008 project start date







- Seventh Framework Programme
- Theme 10 Security Call
- Wireless Communication for EU Crisis Management
- 13 Partners
- Starting date: 1<sup>st</sup> September 2008
- End date: 30<sup>th</sup> April 2012
- 44 months duration
- Total cost ~ €12.5M
- EU contribution ~ €8.6M



### **SECRICOM** Consortium





### **Project Vision**



• Secure infrastructure for communication during a crisis





### **Programme Overview**





SEVENTH FRAMEWORK PROGRAMME

### Who is doing what



WP	Work Package Title	Lead Partner	Supporting Partners
1	Project management and coordination	QinetiQ	Ardaco, University of Luxembourg, Smartrends
2	System analysis and design	Smatrends	All Partners
3	Secure wireless fault tolerant communication	Ardaco	QinetiQ, Bumar, University of Luxembourg, ITTI, BAPCO
4	Secure agent infrastructure	Institute of Informatics, Slovak Academy of Sciences	Ardaco, NEXTEL, Graz University, Smartrends
5	Secure docking module	Graz University of Technology	Ardaco, Infineon Technologies AG, Smartrends, CEA, Hitachi
6	IPV6 based secure communication	Université du Luxembourg	QinetiQ, Ardaco, NEXTEL, Graz University, ITTI, BAPCO
7	Integration of research results	Ardaco	All Partners
8	Internetwork interfaces, interoperable extendable network	QinetiQ	Ardaco, Bumar, Graz University, BAPCO, Hitachi
9	Communication infrastructure monitoring and control centre	NEXTEL S.A.	Ardaco, Bumar, Smartrends, ITTI, BAPCO
10	Demonstrator creation and presentation	QinetiQ	All Partners
11	Dissemination of research results	CEA	All Partners

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# Project Objectives and Challenges

- Mitigate problems of contemporary crisis communication infrastructures:
  - Seamless and secure interoperability of existing (many hundred thousand) mobile devices already deployed
  - Smooth, simple, converging interface from systems currently deployed to systems of the new Software Defined Radio (SDR) generation
  - Creation of pervasive and trusted communication infrastructure, bringing interconnectivity between different networks
  - Seamlessly support different user traffic over different communication bearers
  - Facilitate collaboration and inter-working of emergency responders
- Add new smart functions using distributed IT systems based on an SDR secure agents' infrastructure:
  - Easier instant information gathering and processing focusing on emergency responders main task – saving lives



### **Project milestones**

- 1: External and internal system requirements reports (Smartrends)
- Secure docking Module design completed (Infineon)
- 3: Emulator available (Ardaco)
- Chip-Design completed (Graz University) 4:
- 5: Availability of subsystem elements for integration (QinetiQ)
- 6: Secure communication system (Ardaco)
- Secure agent infrastructure prototype (Slovak Academy of Sciences)
- Definition of the prototype solution for security model (NEXTEL)

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- 9: Status of system following
- 10: Technology demonstration

M1

Sept '08

integration (QinetiQ)

(QinetiQ) 6







### **Expected results**



- SECRICOM will develop and demonstrate a secure communications infrastructure for the emergency services
- Achievements will include:
  - The exploitation of existing publicly available communication network infrastructure with interface towards emerging SDR systems
  - Interoperability between heterogeneous secure communication systems
  - A parallel distributed mobile agent-based transaction system for effective procurement
  - Infrastructure based on custom chip-level security



## **User requirements**





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### Approach to user engagement and \*\*\*\*\*\* requirement capture





### **Outline scenario**

- Need for scenario to be plausible
- Reservoir that breaches & floods into neighbouring country
- Multi-agency response with several crisis sub-scenarios
- Strategic, Tactical and Operational levels of command
- Focus on communications needs – avoidance where possible of state, regional and agency protocols





### Generic Multi-Incident/Multi-Responder C2







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### **Seamless Communications**







### Contacts

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