

Recover
quickly
Keep on
talking



Terrorism, major industrial accidents, natural disasters...



...unpredictable catastrophic events...

*...require innovative and affordable solutions for Public Safety Agencies
and their first responders...*

A key aspect in helping to recover?

Communication system

- ★ Operating
- ★ Integrated
- ★ Secure
- ★ Reliable
- ★ Stable

Any solution to this challenging requirement?

★ **SECRICOM platform**



EU CRISIS MANAGEMENT

REFERENCE SECURITY PLATFORM

- ★ Project in FP7 – Cooperation – SECURITY theme
- ★ Duration 44 months: 9/2008 – 4/2012
- ★ Consortium of 13 partners
- ★ Budget 12,46 mil €

Objectives

(A) Solve problems of crisis communication systems

- ★ Extend their interoperability
- ★ Decrease the vulnerability against misuse
- ★ Enhance the possibilities to recover from failures
- ★ Alternative data carrier introduction
- ★ Deployment and operational costs reduction

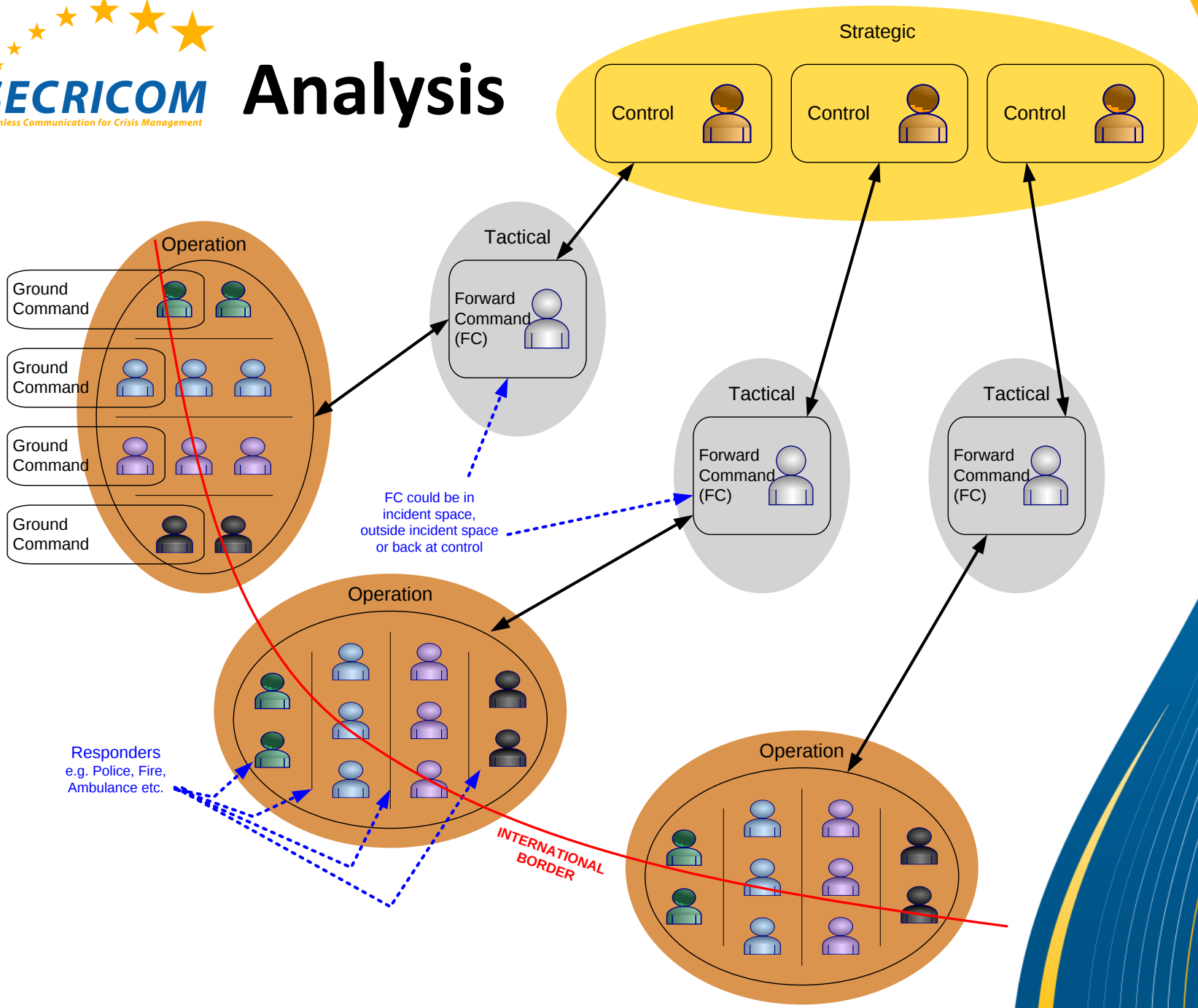
(B) Add new smart functions to existing services

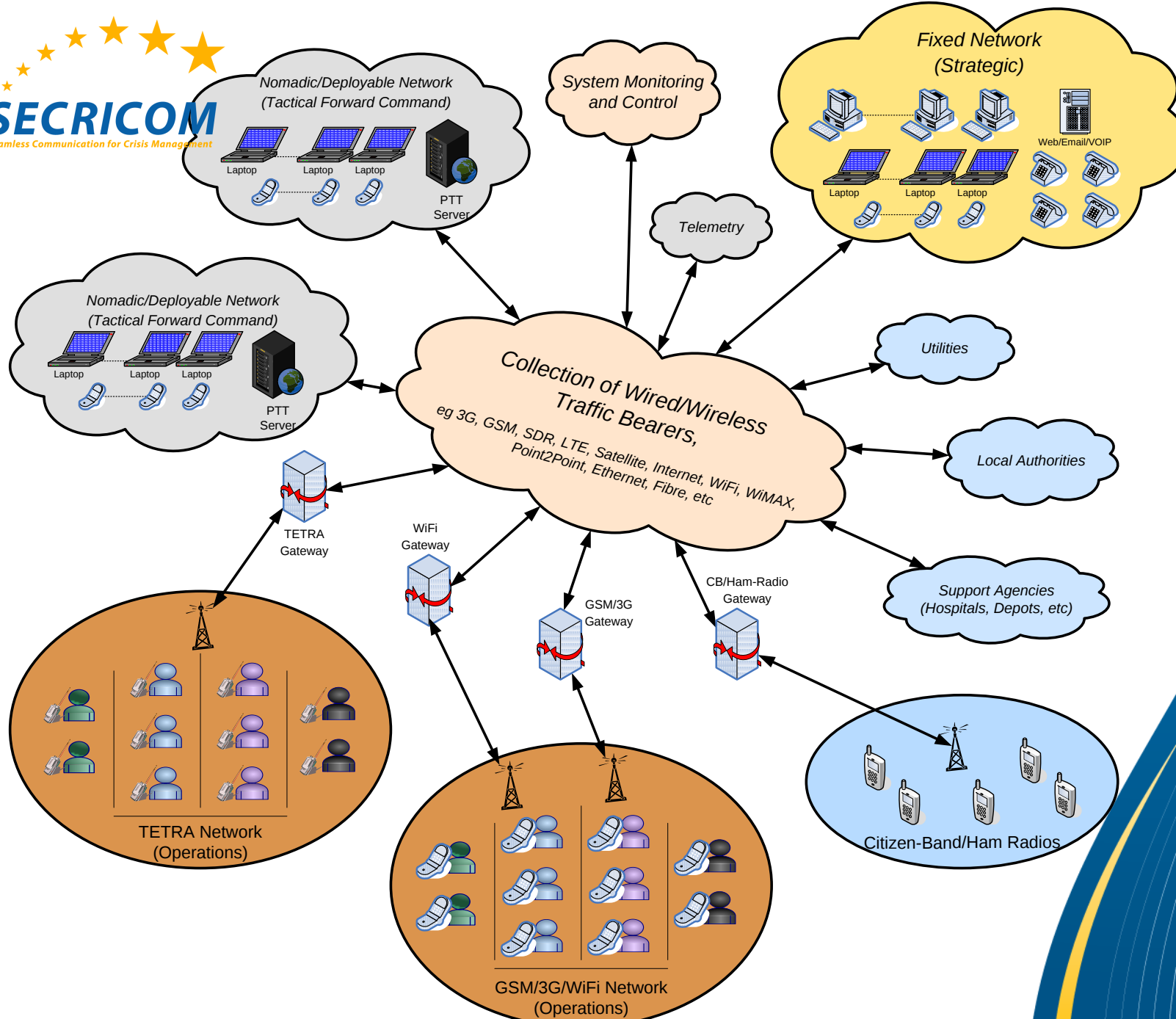
- ★ Easier instant information gathering and processing

Implementation plan

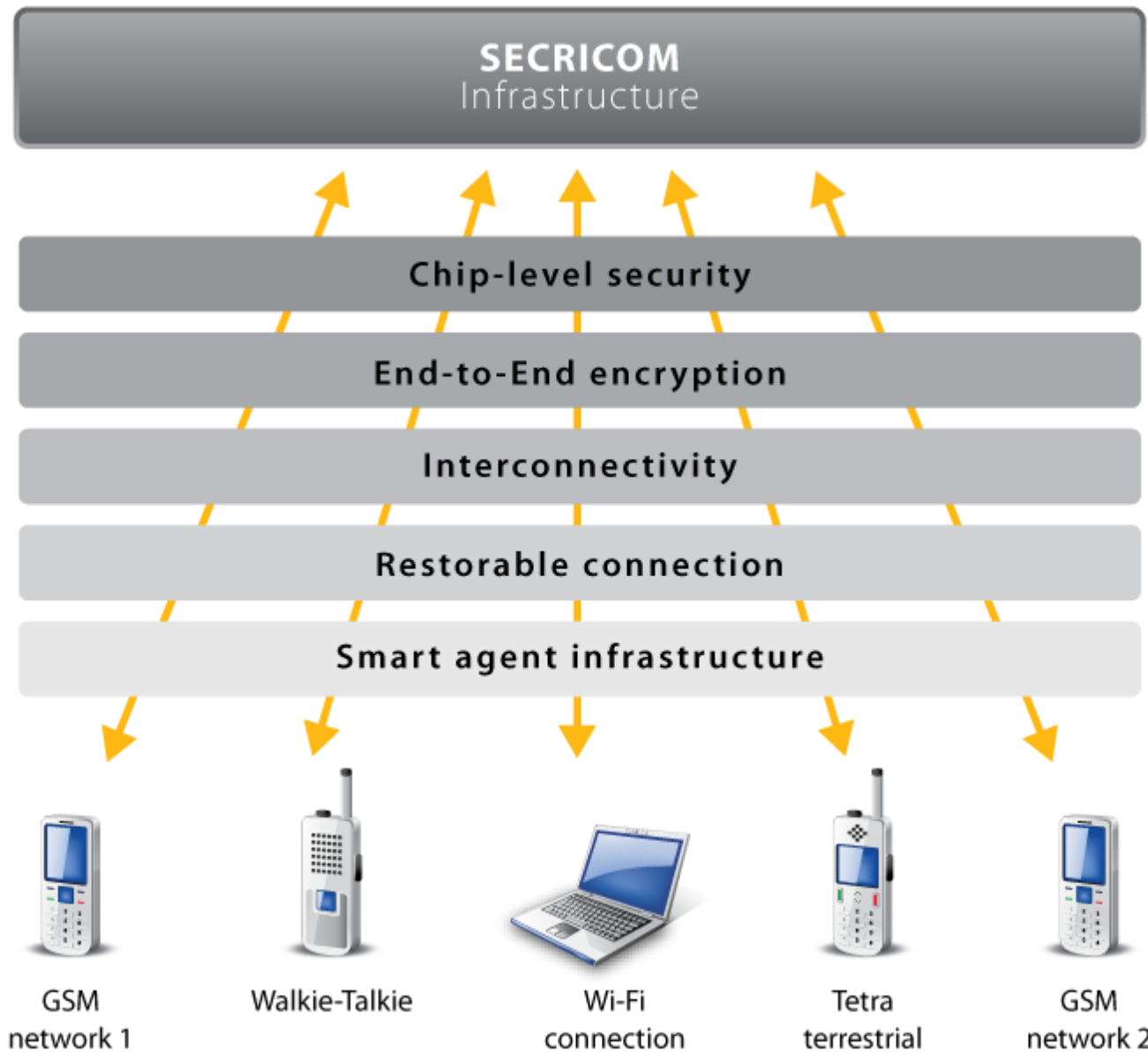
- ★ Analysis of crisis management and communication
 - 6 months
- ★ Analysis of technologies
 - 6 months
- ★ Design and development of infrastructure
 - 36 months
- ★ Incremental integration + demonstrations
 - 24 months
- ★ Exploitation = Sales & Deployment
 - During and after the project lifetime

Analysis





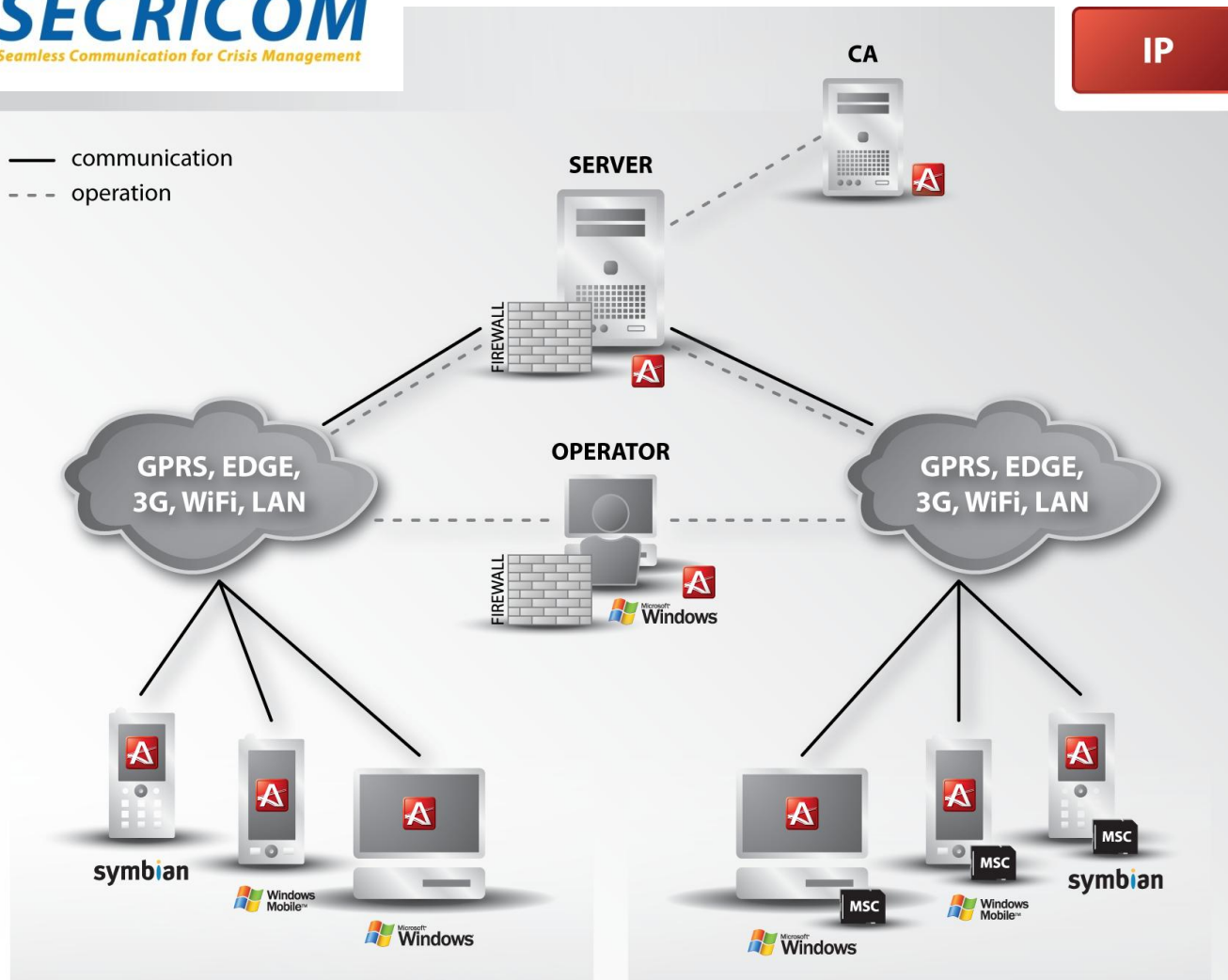
Infrastructure



Infrastructure

- (1) Secure encrypted mobile group communication**
- (2) Trusted hardware security enhancing the confidentiality of users**
- (3) Improved interoperability among various existing systems**
- (4) Smart distributing system introduction**

— communication
 - - - operation



Ardaco technologies – SECRICOM PTT

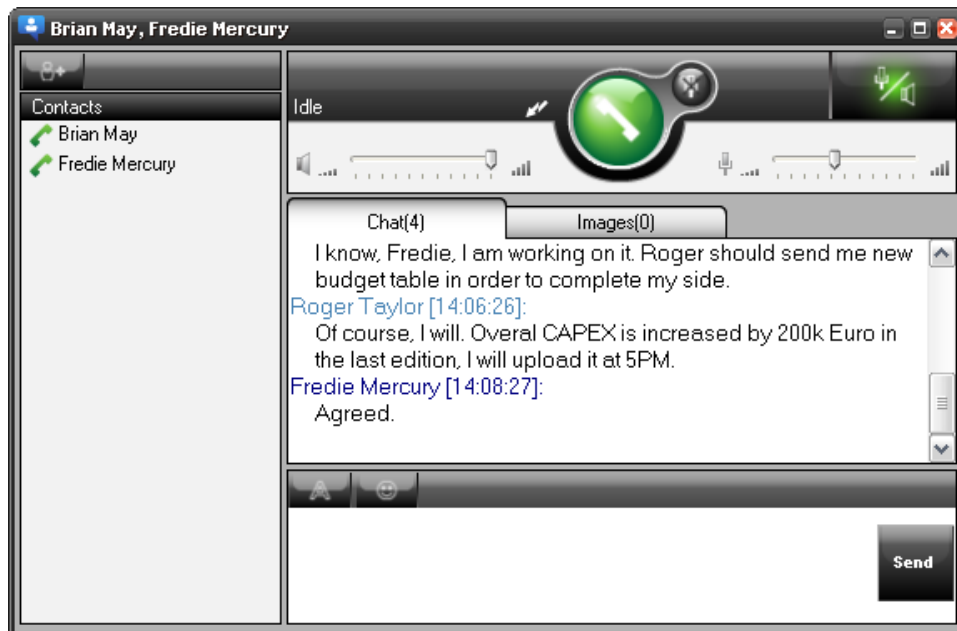
★ Secure team communication (mobile and PCs)

- ★ One – to – One
- ★ One – to – Many
- ★ Command rights



Ardaco technologies – SECRICOM PTT

- ★ Full duplex call
- ★ Push-to-talk call
- ★ Messaging

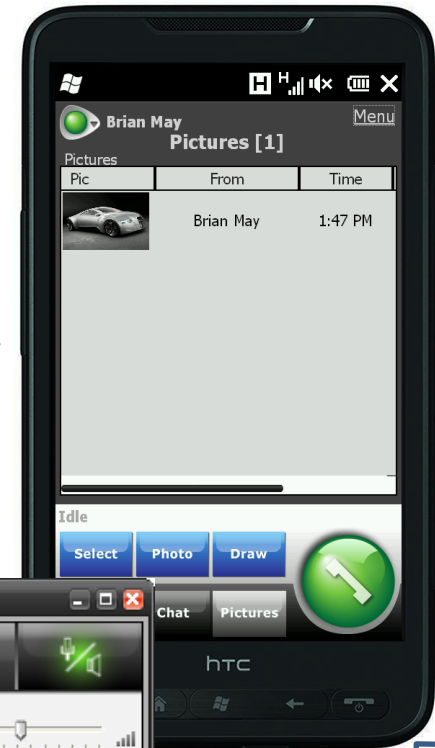


Ardaco technologies – SECRICOM PTT

- ★ Drawings sharing
- ★ Pictures sharing
- ★ Audited security



Clear  Send



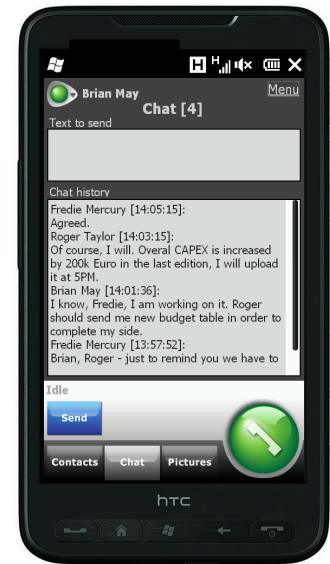
Achievements (1/3)

SYSTEM REQUIREMENTS

- ★ In-depth analysis of external and internal system requirements performed

SECRICOM PTT MODULE = SILENTEL

- ★ Communication system using IP protocol
- ★ Secure encrypted push to talk based voice, multimedia, instant messages and control data transmission
- ★ Available for assorted devices such as mobile phones, laptops
- ★ Available for variety of mobile and fixed networks (GSM, UMTS, LAN, WAN)
- ★ Universal interface - SECRICOM to the other communication systems is planned (TETRA, TETRAPOL)



Achievements (2/3)

SECURE AGENT INFRASTRUCTURE (SAI)

- ★ Software services design with agent-like features
- ★ SAI will be executed on secure devices - secure docking stations (mobile phones and laptops)
- ★ Software agent has features used for enactment of certain processes
- ★ SAI will help to semi-automatically generate plan of crisis situation resolution

SECURE DOCKING MODULE (SDM)

- ★ Single-chip security device that protects the information to provide security for agents that dock on to a trusted agent network
- ★ SDM design is based on Trusted Computing principles

Achievements (3/3)

SECRI COM READY FOR IPv6

- ★ SECRI COM modules should be eligible to cope with an IPv6 environment
- ★ Modules should be capable of handling this protocol taking into account defined Quality of Service
- ★ Impact of IPv6 to SECRI COM was studied and described in details

FUTURE WORKS

- ★ Testing and further development of the SECRI COM components
- ★ Technology and Capability demonstrator
- ★ Network services/Monitoring and Control Centre definition

Consortium (1/3)



Project Coordinator

Internetwork interfaces, interoperable, recoverable and extendable network



Technical Coordinator

Secure wireless fault tolerant communication



Technical specification

Including testing and dissemination strategy



System chip design



Communication scenario

Including testing and dissemination strategy

Consortium (2/3)



Docking module design

Internetwork interfaces



Security analysis

Intellectual property affairs, chip-level security



End user view

Crisis scenario specification, end user view and dissemination



Administration

Administrative tasks, development of system

Consortium (3/3)



IPv6 study

IPv6 based secure communication



Dissemination

Leadership, research



Secure Docking module

Design and description



Secure Agent Infrastructure

Theoretical background and secure agent infrastructure



Thank you for your attention

Ďakujem vám za pozornosť



Projekt SECRICOM bol podporený z finančných prostriedkov Európskej únie sumou 8 606 791 €. Grantová zmluva FP7-218123.

SECRICOM project is supported by the European Union with a grant 8 606 791 €. Grant agreement number: FP7-218123.