



Consulting. Integration. Outsourcing.

S&T defence

Personal Eye System (PES)

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1. Introduction
2. Android for Military
3. PES Features
4. PES Demo
5. Case Study

Quick Facts

- MIL STD devices are available
- US DoD certified Android platform
- Android already used in some units

Introduction

The background



1. Every army had “Future warrior programme”, and spent millions in development
2. No “Future warrior kit” is in common use. (Expensive, power hungry and bulky equipment)
3. The need for a “digital soldier” is still here
4. COTS is coming
5. Efficient data networking is the key to success

Introduction

Android goes military!

- US Net Warrior “canceled” in favour of Android devices



Introduction

Android goes military!



- the Army's struggled for nearly twenty years to get soldiers tough, light, bandwidth-conserving gear that can allow them to find each other on a digital map.
- BUT (!) ... Android relays heavily on network connectivity!



Introduction

Android goes military!



HARRIS KnightHawk 3G

The self-contained WCDMA network runs over the 2100MHz spectrum, promising download speeds as fast as 14.4mbps and max upload rates of 5.76mbps. It has capacity for up to 60 simultaneous voice calls and can handle 14 HSPA connections at a time.



Introduction

Android goes military!



GD FORTRESS TECHNOLOGY

- 4.4 Ghz Licensed NATO C band
- Wi-Fi Alliance



Android and the military

Military grade personal navigation



PES
Personal Eye System

Personal Eye System

Features



Personal Eye System

PES

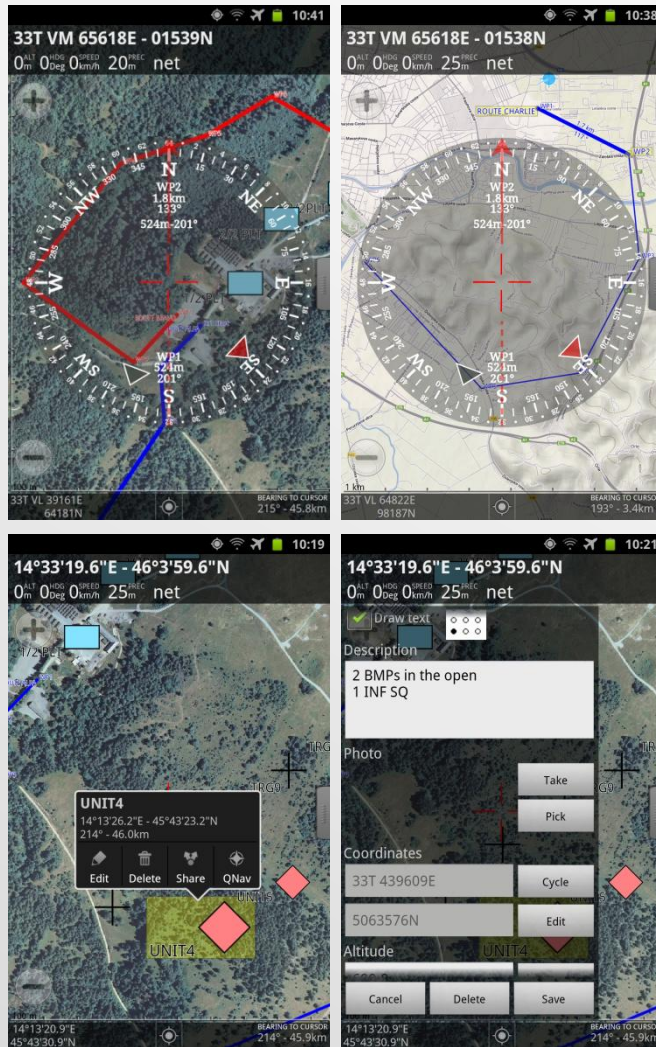


FEATURES:

- Online/Offline multilayer map support
- Choice of GIS component (civilian or MIL)
- Full device and data encryption
- Navigation (tracks, routes)
- Blue Force tracking
- Automatic report generation
- Grid conversions (UTM, MGRS, DMS)
- COP sharing over 2G/3G and WiFi
- Integrates with SATCOM or VHF
- Works on Android 2.3 or newer
- Works on Phones, pads and tablets
- Works on dedicated MIL STD hardware

Personal Eye System

Usage



USAGE:

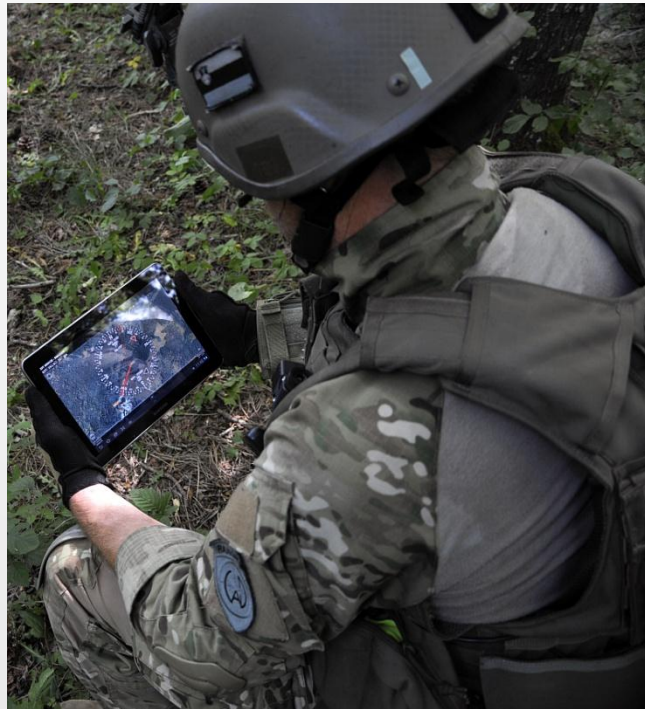
- Military Topographical navigation
 - Route planning and navigation
 - Reconnaissance & Patrolling
 - Checkpoint operations
 - Area of Operations survey
 - Coordinate conversion
-
- Blue Force Tracking
 - Common Operational Picture distribution

FOR:

- Military, Special Forces, Police

Personal Eye System

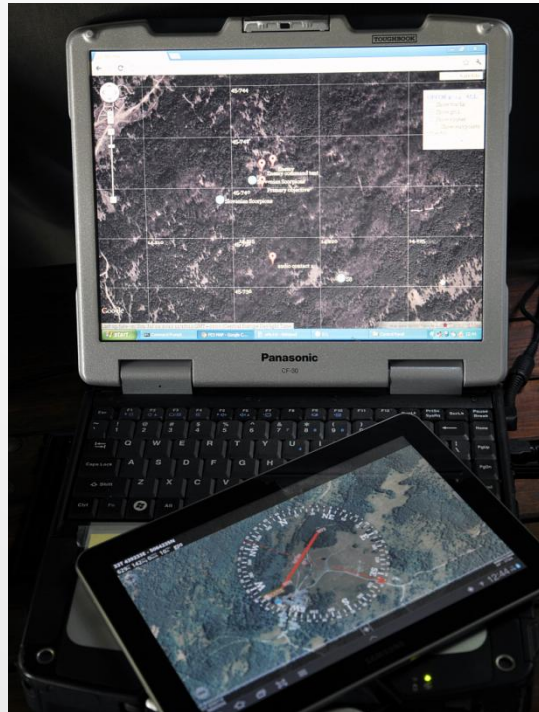
“SLLS” with PES



“Stop, Look, Listen, and Smell” (SLLS)
...it’s about time to change!

Personal Eye System

Battlefield Intelligence with PES Server



**Eyes on the ground, are just one end
of the chain.**

Personal Eye System

Battlefield Intelligence with PES Server

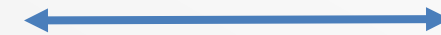


EXISTING
SYSTEMS



COMMAND
STAFF

PES
SERVER



MOBILE UNITS



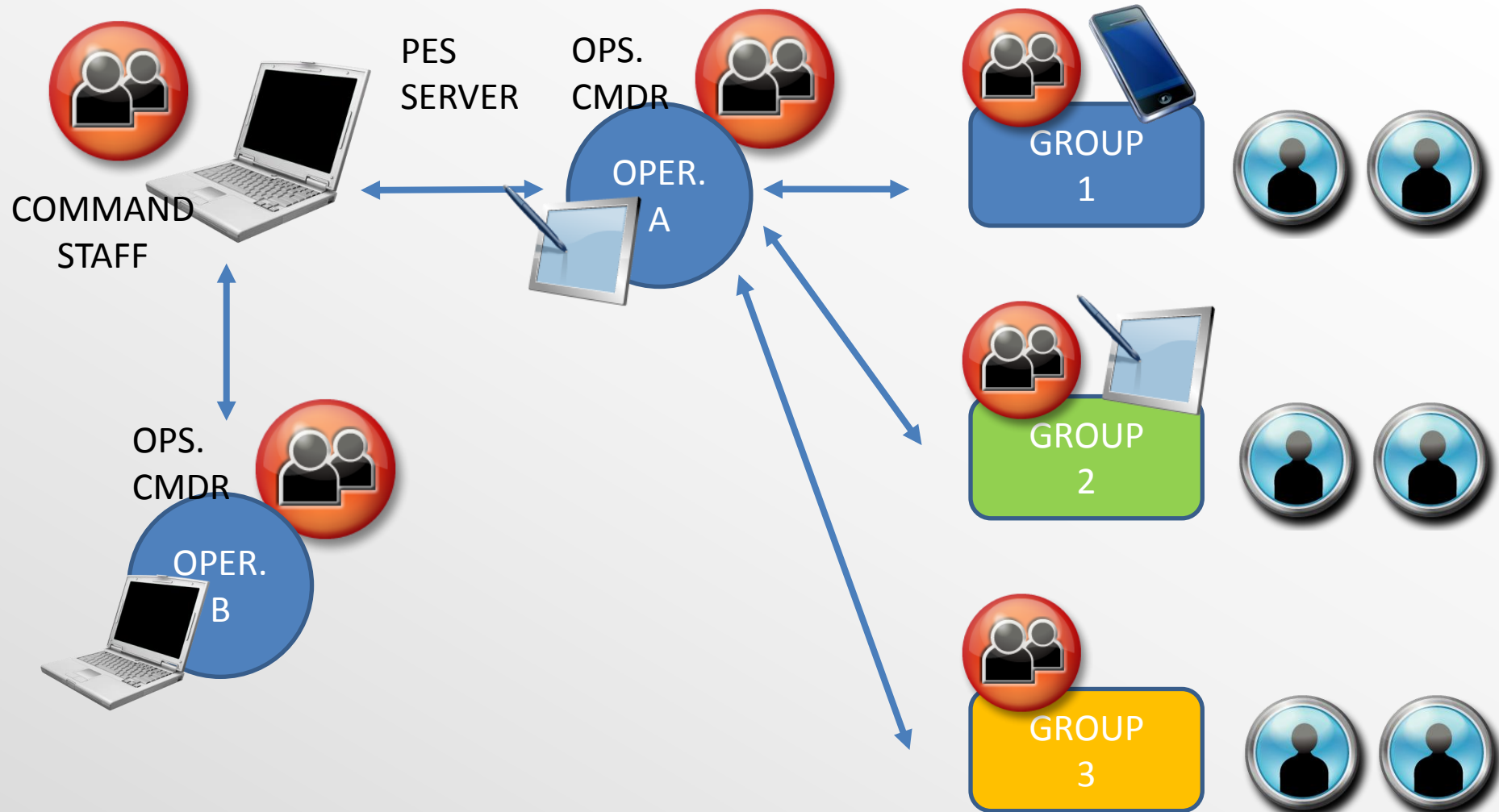
UNITS ON FOOT



SPECIAL EQUIPMENT

Personal Eye System

Battlefield Intelligence with PES Server



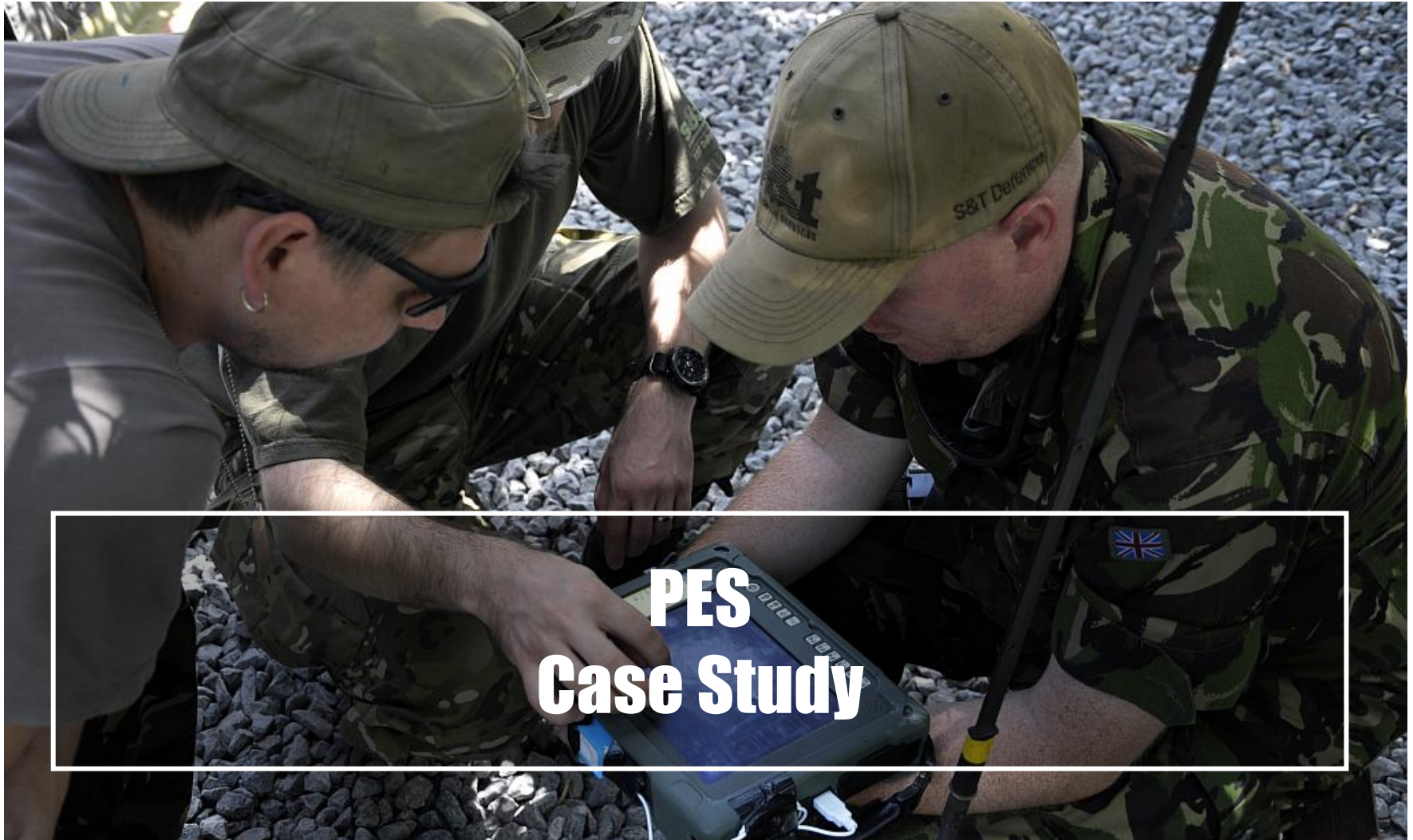
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Live demo!



Android and the military

Case Study



Case Study

Security firms



HQ



SECURITY
DETAIL



- Vehicle tracking
- Personnell tracking
- Planned Route & Track sharing
- Incident reporting (inlcuding photos)
- Checkpoint operations
- Disstress signaling
- QRF alerting
- MEDEVAC requests
- Person identification (photo share)
- Works over SATCOM, 3G or VHF
- Casual looking device (phone)

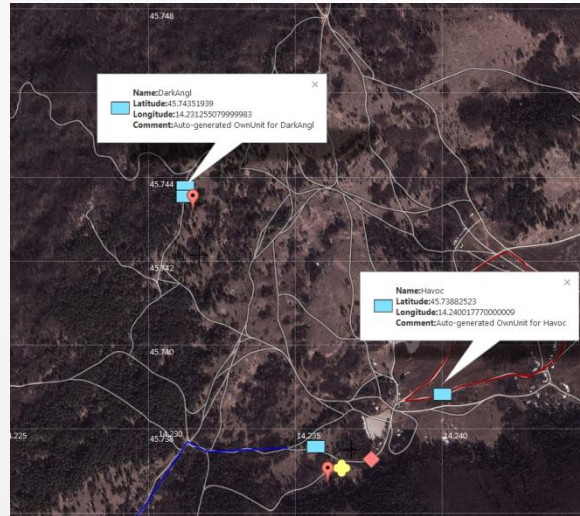
Case Study

Convoy/Security Operations



SITUATIONAL
PICTURE

EXTERNAL
INTEL



CONVOY

QRF
TEAM



Case Study

Civilian - government services



- Police departments
- Fire departments
- Paramedics
- Mountain rescue
- Rangers, loggers etc.
- Environmentalists
- National crisis management centers
- Civil protection

Personal Eye System

Civilian – Personal use



- Hiking, Cycling, sailing, soaring etc.
- Cross country running
- Event organization support
- Groups /participants tracking
- Topographical Navigation
- Military simulation
- Airsoft or Paintball
- Hunters

Alternative?

BFT Lite



Conventional Application:

- PDA Hardware
- Windows CE platform
- Bulky and power hungry
- In use with the Slovenian Army

Alternative?

BFT Lite



Alternative?

BFT Lite

s&t



Alternative?

BFT Lite

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KEYCHAIN
TRACKER



OBD CAN BUS
TRACKER



PERSONAL
TRACKER



ANIMAL
TRACKER



S&T Group

Presence



ALBANIA
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CZECH REPUBLIC
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MACEDONIA
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SLOVENIA
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