

# MPOC Interoperability for Emergency medical care



# Introductory overview

- Prague EMS manages its operations through the creation of Electronic Mission Records (EMiR).
- Rugged laptop PCs – Panasonic TOUGHBOOK CF-19 were provided for physicians in the Prague EMS, to collect information @ the scene of an emergency.
- The laptops provided the physicians with mobile access to the Emergency Service Centre via a 3G HSDPA connection and a central application server. Data inputted at the scene of the emergency is fed into the EMiR.

# The importance of technology

## Car PC



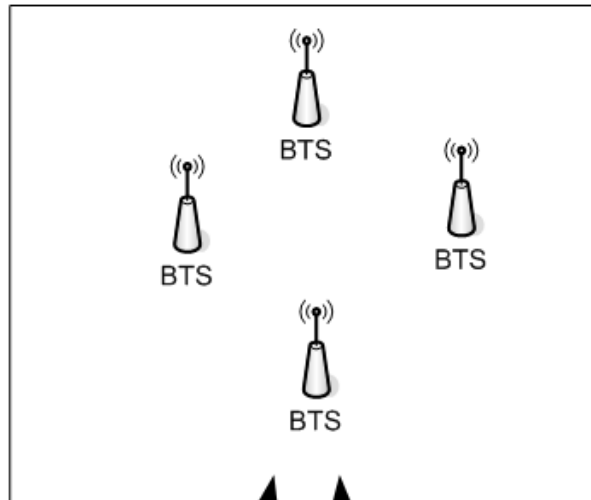
## Tablet PC

## GEMMA Mobile Client

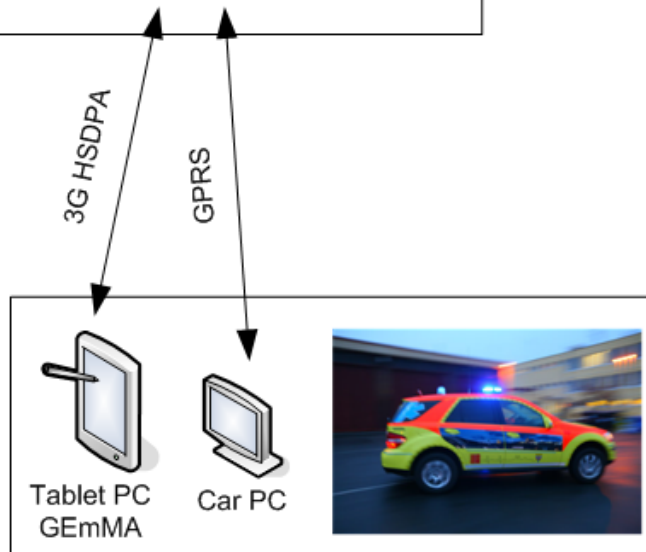
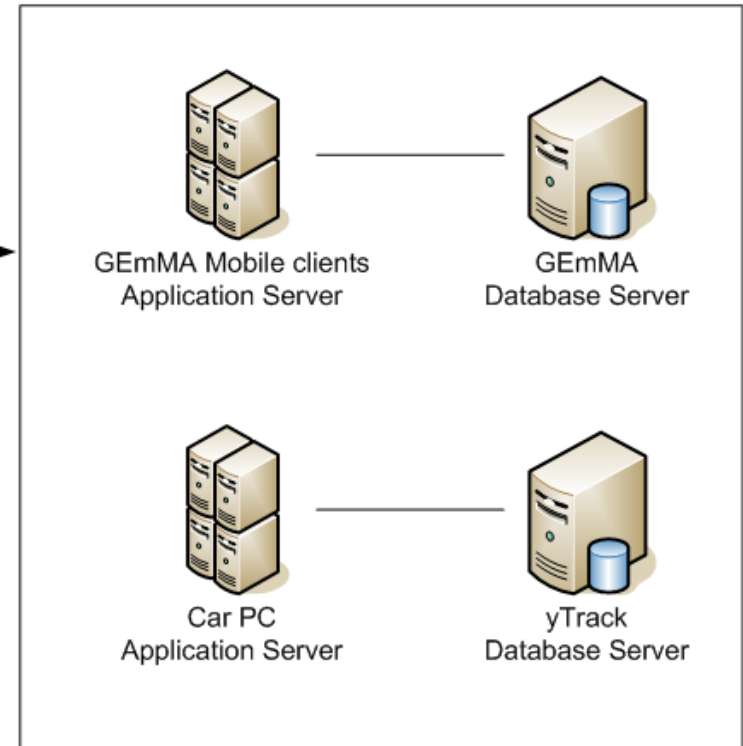


# The importance of technology

## Mobile Operator



## Prague EMS



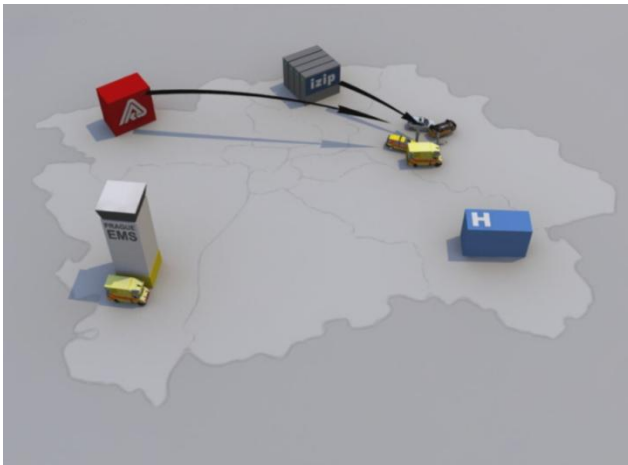
# Benefits

## Health IT Value analysis

Value dials	Measures
<b>Workflow optimisation</b>	Shift efficiency
	Improved decision-making
	Accurate invoicing
	Headcount reduction
	Faster hospital admissions and interventions
<b>Patient safety</b>	Reduced transcription errors
	Faster hospital intervention
	Compliance with standards
	Improved clinical decisions
	Improved decision making
<b>Patient satisfaction</b>	Reduced length of stay
<b>Staff satisfaction</b>	Increased credibility
	Increased confidence in decision making
	Time saving
	Increased staff retention
<b>Cost optimisation</b>	Cost improvements
<b>Revenue enhancement</b>	Increased revenues

# Originality

**Added Value coming from interoperability with external systems – getting more @ place**



- Interoperability with Central Electronic Health Record repository IZIP
- Interoperability with national register of Insurance numbers of VZP (General Health insurance Company ) – impact on billing
- Interoperability with EMS internal Patient register

# Difficulty

- broadband HSDPA connectivity at some parts of Prague suburbs
- safe & ergonomic placement of hardware in vehicle
- sw Integration of Central dispatch center system
- emergency data set availability in EPHR profiles in repository
- to find mutual agreement on structure of data that would be collected (long term discussions)

# Success

**MPOC pilot project represents a return on investment of 149% within 3 years and a break even close to 12 months**

<u>Item</u>	<u>IT Costs EURO</u>			<u>Maintenance EURO</u>		
	<u>Cost</u>	<u>Qty</u>	<u>Initial Investment</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Rugged Laptops & Other equipment (e.g. printers, etc.)	4,024	2	8,048	724	724	724
Software	2,057	2	4,114	782	782	782
<b>Total Cost</b>			<b>12,162</b>	<b>1,506</b>	<b>1,506</b>	<b>1,506</b>
Admission Productivity Benefit				13,225	13,225	13,225
Administration Productivity Benefit				606	606	606
<b>Net Benefit</b>			<b>-12,162</b>	<b>12,325</b>	<b>12,325</b>	<b>12,325</b>
<b>3yr Project NPV 5% discount</b>			<b>21,403</b>			
<b>Return on Investment</b>			<b>149%</b>			

# Success

## A holistic approach

- Benefit to the Prague hospitals is ultimately also of benefit to the entire health system, including the ambulance service
- Potential reduction in patient length of stay in the hospital due to faster intervention and improved clinical decisions on admission of the patient in hospital
- Increased retention of ambulance physicians because they no longer have to work unpaid overtime in order to complete Emergency Patient Records on the ambulance station PC

A person wearing an orange high-visibility safety jacket is using a Panasonic rugged laptop. The laptop has a coiled telephone cord attached to the screen. The person is holding a pen over the screen. The background is blurred, showing a blue bag and a red bag.

**Thank you for attention**  
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