Proposal of an en-to-end Emergency Medical System

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Accident
Background

- **Traditional Medical Emergency Systems**
  - Traditional calls
  - Requester provides information to human operator
  - Ambulance will be sent to the scene

- **Current Modern Medical Emergency Systems**
  - Partially computerised
  - GPS might assist (fleet tracking)
  - Communications with hospital (ad hoc and simple)
Proposed System

- Comprehensive Medical Emergency System
  - Comprehensive
  - Fully computerised
  - New and emerging technologies (GPS, Mobile WS, HL7)
  - Fully integrated
  - Modules based
  - Secure
System Components

- Mobile Requestor
- Main Central System (MCS)
- Ambulance System
- Smart Online Electronic Health Record (SOEHR)
- Hospital Emergency Department System (HEDS)
Components
Technologies

- Web Services
- Mobile Web Services
- SOA
- GPS
- GPRS and 3G
- HL7
SOAP & HL7
Advantages

- Fully computerized from start to end
- Comprehensive
- Emerging technologies
- Eliminates human errors
- Reduces time
- Access SOEHR
  - Ambulance
  - HEDS
- Modules ON/OFF
Advantages Cont..

- Right ambulance
- Right hospital
- Communications within all parties
- It allows the emergency department to efficiently prepare and monitor incoming patients and ambulances
- Security
- HL7
Conclusion & Future Work

✓ State of the art medical emergency system

• System has been developed and is currently under testing

• System will be evaluated and improved

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Questions & Comments
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