Webinar Series

HITSP

Healthcare Information Technology Standards Panel

Emergency Responder Electronic Health Record

Emergency Information Infrastructure Project

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HITSP
Healthcare Information Technology Standards Panel

Overview

- HITSP is a volunteer-driven, consensus-based organization that is funded through a contract from the Department of Health and Human Services.

- The HITSP Panel brings together public and private-sector experts from across the healthcare community to harmonize and recommend the technical standards that are necessary to assure the interoperability of electronic health records.

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Deliverables and Mode of Operation

- The HITSP Standards Harmonization Framework
  - Identify a pool of standards for an AHIC (American Health Information Community) Use Case
  - Identify gaps and overlaps in the standards for this specific Use Case
  - Make recommendations for resolution of gaps and overlaps
  - Select standards using HITSP-approved Readiness Criteria
  - Develop **Interoperability Specifications (IS)** that use the selected standard(s) for the specific context
  - Test the IS

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Current Interoperability Specifications (IS)







IS 01	Electronic Health Record (EHR) Laboratory Results Reporting
IS 02	Biosurveillance
IS 03	Consumer Empowerment and Access to Clinical Information via Networks
IS 04	Emergency Responder Electronic Health Record (ER-EHR)
IS 05	Consumer Empowerment and Access to Clinical Information via Media
IS 06	Quality
IS 07	Medication Management

IS 04 Emergency Responder Electronic Health Record (ER-EHR)

- This Interoperability Specification defines specific standards required to track and provide on-site emergency care professionals, medical examiner/fatality managers and public health practitioners with needed information regarding care, treatment or investigation of emergency incident victims.

  - Version: 1.0 Accepted
    (Secretary of HHS has accepted for a period of testing)
  - Version:1.1.1 Panel Review

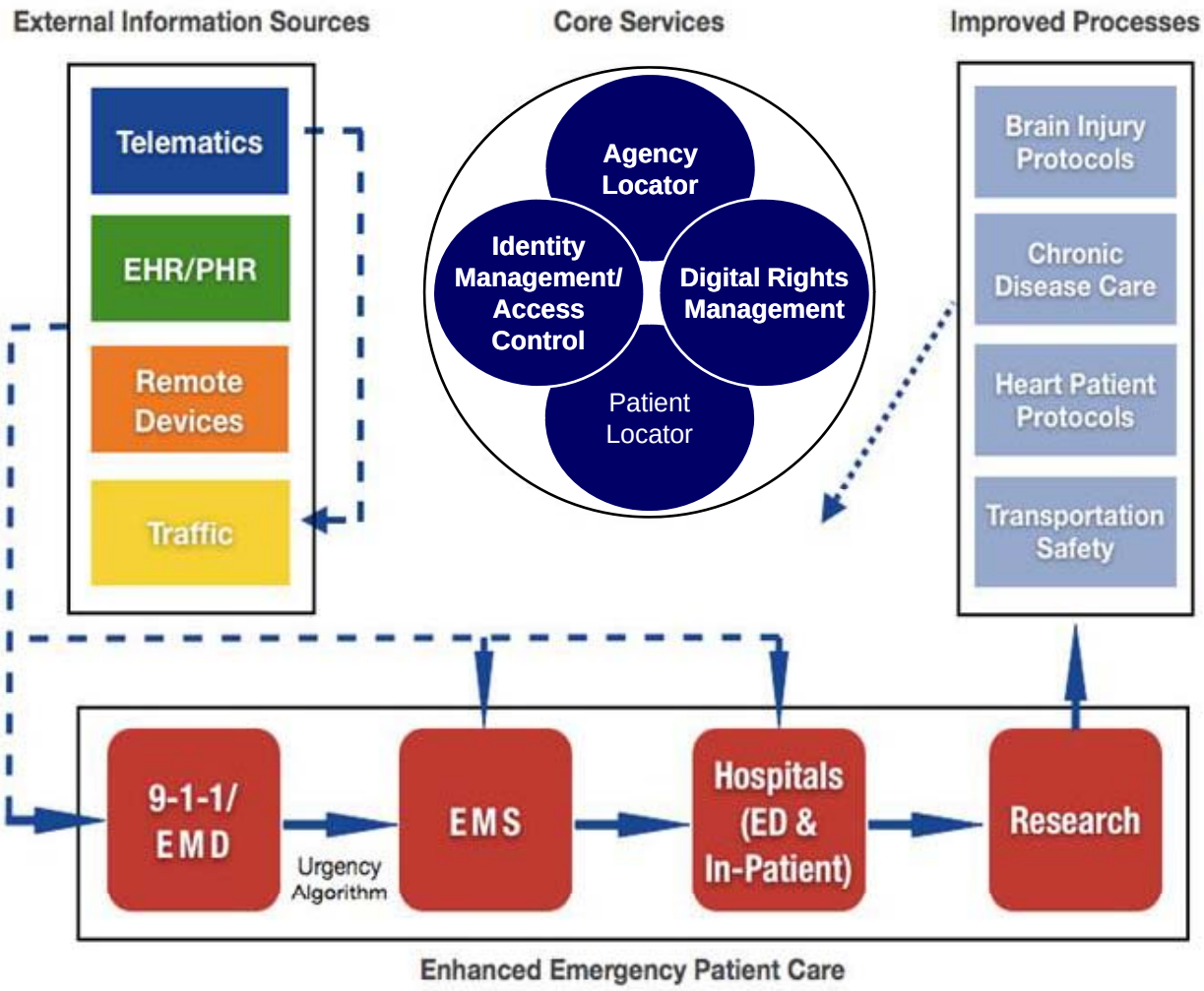
Emergency Responder Use Case

- On-site Care
- Emergency Care
- Definitive Care

- Small Scale (e.g., car accident)
  - Local Response
- Medium Scale (e.g., chemical spill)
  - Regional Response
- Large Scale (e.g., pandemic)
  - National Response

Integrated Emergency Medical Response

Emergency Responders' Clinical-Care Information-Technology Settings



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AHIC Use-Case Stakeholders and Information Exchange Requirements

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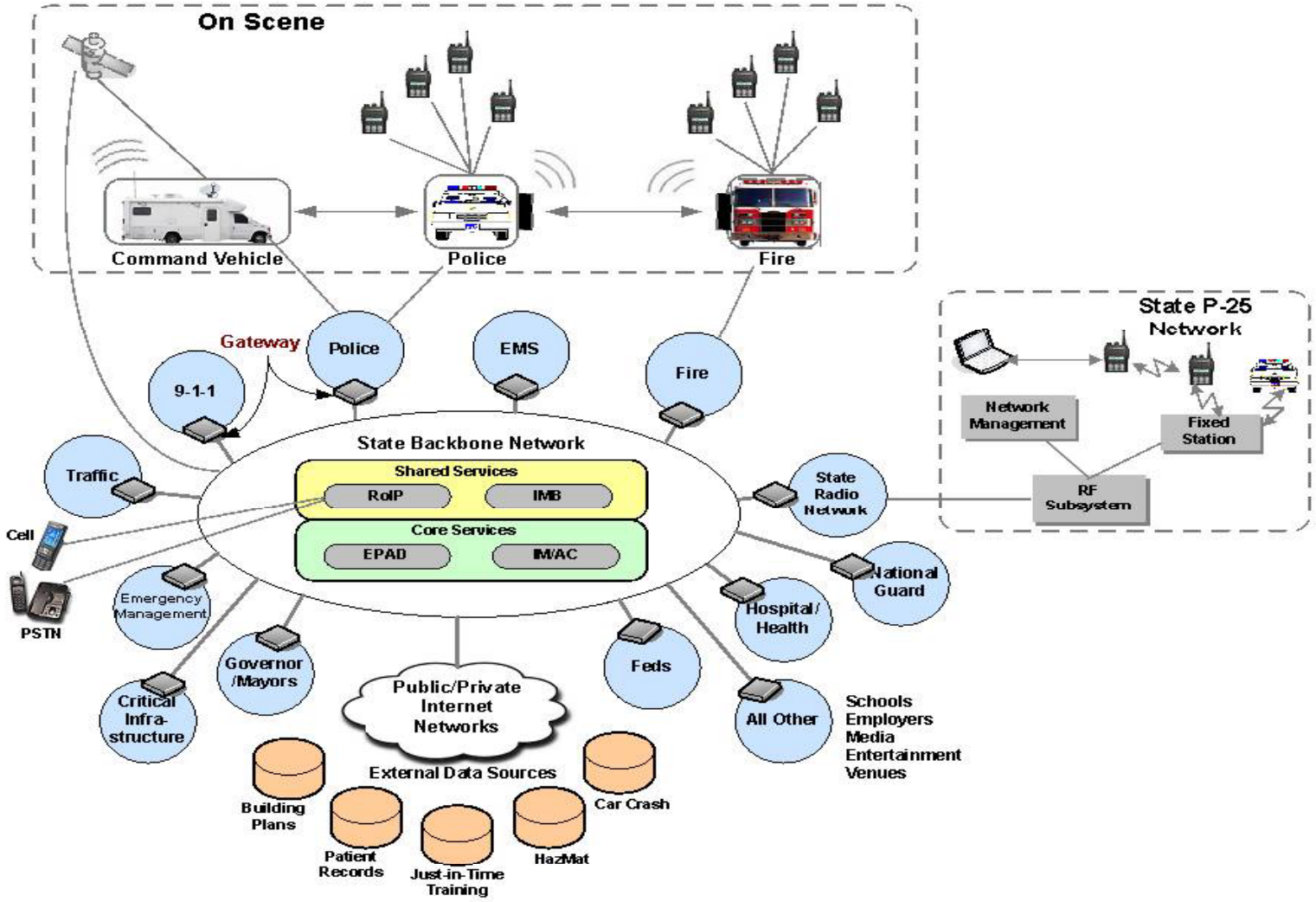
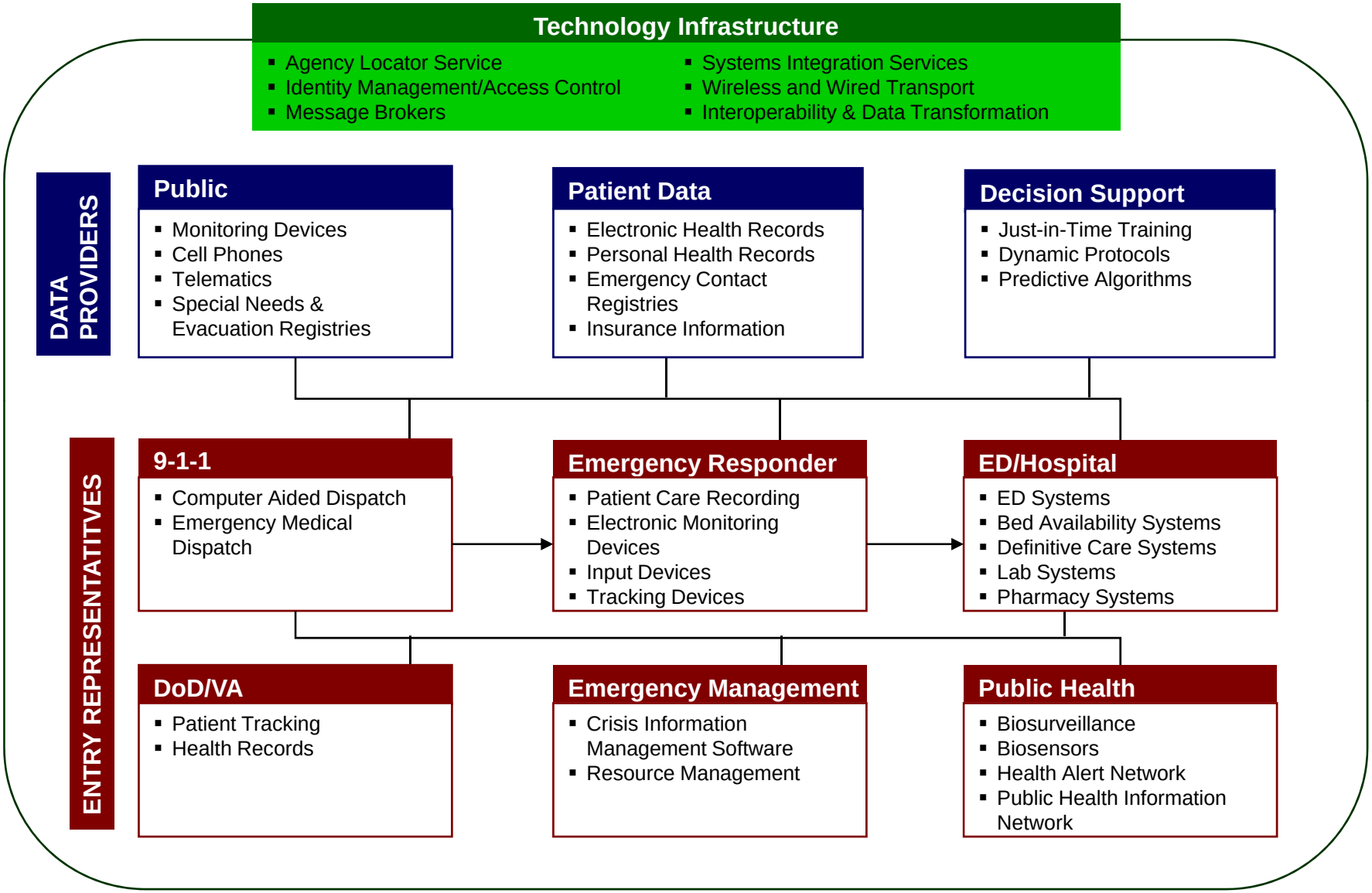
Proposed Model State Emergency IT



HITSP specifies interoperability standards; not implementation architectures.


Technology Infrastructure
Agency Locator Service
Identity Management/Access Control
Message Brokers
Systems Integration Services
Wireless and Wired Transport
Interoperability & Data Transformation
DATA PROVIDERS
Public
Monitoring Devices
Cell Phones
Telematics
Special Needs & Evacuation Registries
Patient Data
Electronic Health Records
Personal Health Records
Emergency Contact Registries
Insurance Information
Decision Support
Just-in-Time Training
Dynamic Protocols
Predictive Algorithms
ENTRY REPRESENTATITVES
9-1-1
Computer Aided Dispatch
Emergency Medical Dispatch
Emergency Responder
Patient Care Recording
Electronic Monitoring Devices
Input Devices
Tracking Devices
ED/Hospital
ED Systems
Bed Availability Systems
Definitive Care Systems
Lab Systems
Pharmacy Systems
DoD/VA
Patient Tracking
Health Records
Emergency Management
Crisis Information Management Software
Resource Management
Public Health
Biosurveillance
Biosensors
Health Alert Network
Public Health Information Network

Use Case Stakeholders

Emergency Communications System (**ECS**) • 9-1-1 • Dispatch • Emergency Management • Private sources of information (e.g., OnStar) • Supporting IT systems • Police, fire	Patient ID Cross-Referencing Service (**PID**s) / Emergency Contact Registry (**ECON**)
On-Site Care Providers / Incident Commander	Public Health Agencies
Emergency Department Staff	Appropriate Shared (**HIS**) repositories
Network Service Providers and Other Healthcare Systems	Another Facility
Electronic Health Record (**EHR**)	Medical Examiner / Fatality Manager
Clinician	Personal Health Record (**PHR**)

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ER-EHR
Gap Harmonization Projects

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ER-EHR Gaps and Overlaps Projects

- In October 2007, the HITSP Care Delivery Technical Committee (CDTC) formed an Emergency Medical Awareness and Response (EMAR) tiger team workgroup to address its IS04 ER-EHR identified standards gaps and overlaps
- The work was planned to be completed in 2008, resulting in an updated version of IS 04
- National Emergency Medical Services Information System (NEMSIS) assumed the leadership of the EMAR tiger team, which is addressing or monitoring the ER-EHR related projects described on the following pages

Integrated Emergency Medical Response

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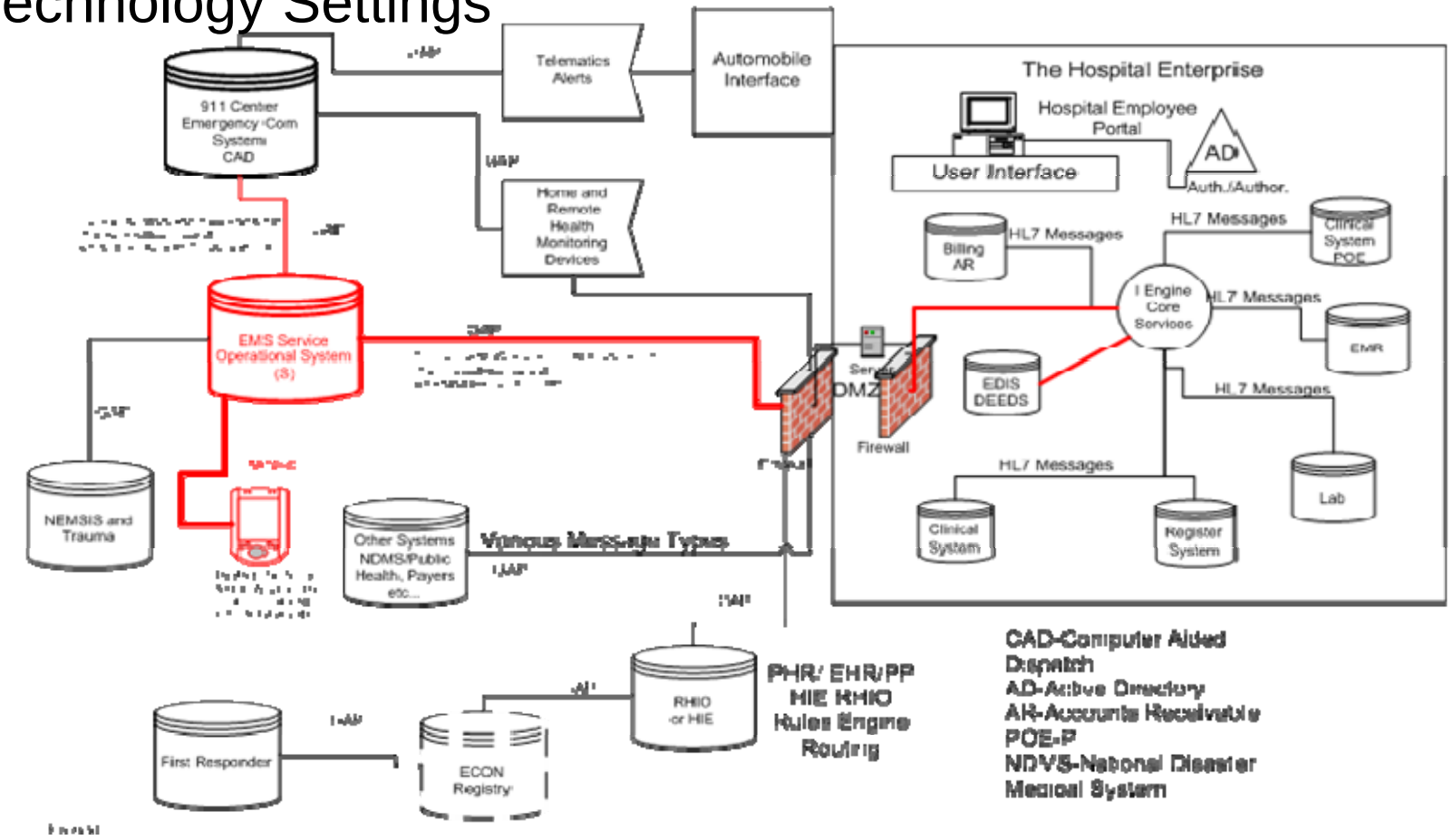

Gap and Harmonization Project #1
Incident and Victim Identifiers

- Develop a standard practice for the initial first responder organization (normally government) to become aware of an incident
  - assigns unique identifiers to an incident, any victims, and the other actors
  - adopts those identifiers for all information exchanged about the person or incident
  - associates person's actual identity, when established, with the unique identifiers (UIDs) noted above
  - links a person's historical health information and new information developed about the victim, patient, and or incident to the UIDs

The UID for both victims and incidents is a temporary ID and is used for the duration of the event by all involved

Gap and Harmonization Project #2

Common Approaches to Delivering Incident Information

- Exploring whether delivery of telematics data to the ECS and other emergency responders can be generalized to other third party incident information. This effort will consider, at a minimum:
  - OASIS EDXL Distribution Element as the routing “header” for the pre-hospital messaging, along with different payloads (VEDS, IEEE 1512)
  - The use of
    - core services to route data and provide security, including a managed list of incident types
    - internet accessible electronic maps to share information before interfaces to legacy systems are established
    - decision support tools in 9-1-1 and medical control to manage the use of the new data

Gap and Harmonization Project #3

Standardized List of Incident Types

- Develop a consensus among leaders of the key emergency response domains on incidents, names and types

  - NOTE: Though this is not a standards development process, it does support the OASIS EDXL Distribution Element calls for a Managed List of Incident types

Gap and Harmonization Project #4
Situational Awareness Reporting

- Utilize the OASIS EDXL DE and OASIS Resource Messages for Situational Awareness Reporting
  - Other Situational Awareness Reporting messages are in early stages of development by a Department of Homeland Security (DHS)-sponsored process
  - The DHS-Disaster Management PWG is developing potential standards

Gap and Harmonization Project #5
Emergency Contact Registry (ECON)

- IHE is developing a standardized query for law enforcement on-site access and exchange of patient-specific emergency contact information from a nationwide database, “ECON”, based upon a unique identified, such as a Vehicle Identification Number (VIN#)
  - On 12/3/07 the IHE ITI Technical Committee approved the ECON Query Profile Proposal
  - The IHE PCC Technical Committee is reviewing a Pre-Hospital Patient Care Report (PCR) Profile Proposal which will develop a standard for on-site care provider electronic download and automated entry patient-specific Emergency Contact Registry, Personal Health Record (PHR), and/or EHR data into an on-site Pre-Hospital Patient Care Report (PCR) system

Gap and Harmonization Project #6

Patient Information and Tracking Data Vocabulary / Terminology Harmonization

- The project will identify current data and exchange standards (e.g., DEEDS and NEMSIS harmonization) that are being used within EMAR enterprise and harmonize them

Gap and Harmonization Project #7

Patient Information and Tracking Messaging and Document Sharing

- Standard methods to support system to system exchange and notification of appropriate entities regarding all the information related to emergency medical response

- The resulting standards will be based upon HL7, HITSP constructs, the NEMSIS standards or the harmonized data standards that are established from Project #6

Gap and Harmonization Project #8
Nursing Terminology Overlap

- An overlap in standards has been identified by the ER-EHR Work Group in the Use Case scenario for Present Episode of Care
  - Many of the individual data elements may be captured by nursing and dependent on nursing terminology
  - A work group of nurses with expertise in nursing terminologies and emergency nursing is being convened to address this overlap.
- **CONCLUSION**
  - This IS will use SNOMED CT as a reference terminology with the HITSP IS pre-condition that the sending and using systems must use formal coded nursing terminologies, such as the Clinical Care Classification (CCC) System or the Omaha System

Gap and Harmonization Project #9

Development of a new HITSP Construct to support EMS cross-domain messaging

- This project will compare and contrast the prevalent OASIS pre-hospital and HL7 hospital transport protocols in order to create a HITSP transport construct that is consistent with DOT, DHS, HHS and other relevant non-healthcare On-Site ER-EHR Use Case Perspective domains

Gap and Harmonization Project #10

Remote Monitoring of Ambulance or Field-based Devices

- The goal is to have data from these electronic devices automatically update the Episode of Care Record, saving time and avoiding errors by responders

- The 2008 Remote Monitoring (**RMON**) Use Case is being addressed by the Consumer Perspective TC. Its focus is home health care and does not include first responders' life support remote monitoring devices

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Questions and Answers

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