Mobile Medical Emergency Collaboration

Experience in Mass Incident Scenario in Slovenia

Byline to go here

Key Challenges for Mass Incident Digital Collaboration – Save Lives

- Establish **immediate pacient triage** information transfer to decision makers to optimize resource usage and save lives
- Provide multimedia support for operations and training
  - Consultation via video conference and whiteboard
  - Live streaming from situational cameras
  - Attach photo and video to medical records
  - Attach pacient data
- Provide reliable and robust communications
  - Hybrid solution from 4G, 4GLocal, Wifi Mesh, Satellite, 5G in future, Bluetooth
  - Local server with optimized redundant operation
  - Optimize data transfer for messaging and multimedia
- User friendly and efficient UX/UI
- Extended tracking, analytics and learning –immersive learning

Mass Incident Medical Setup
(a lot of time spent to understand workflow)
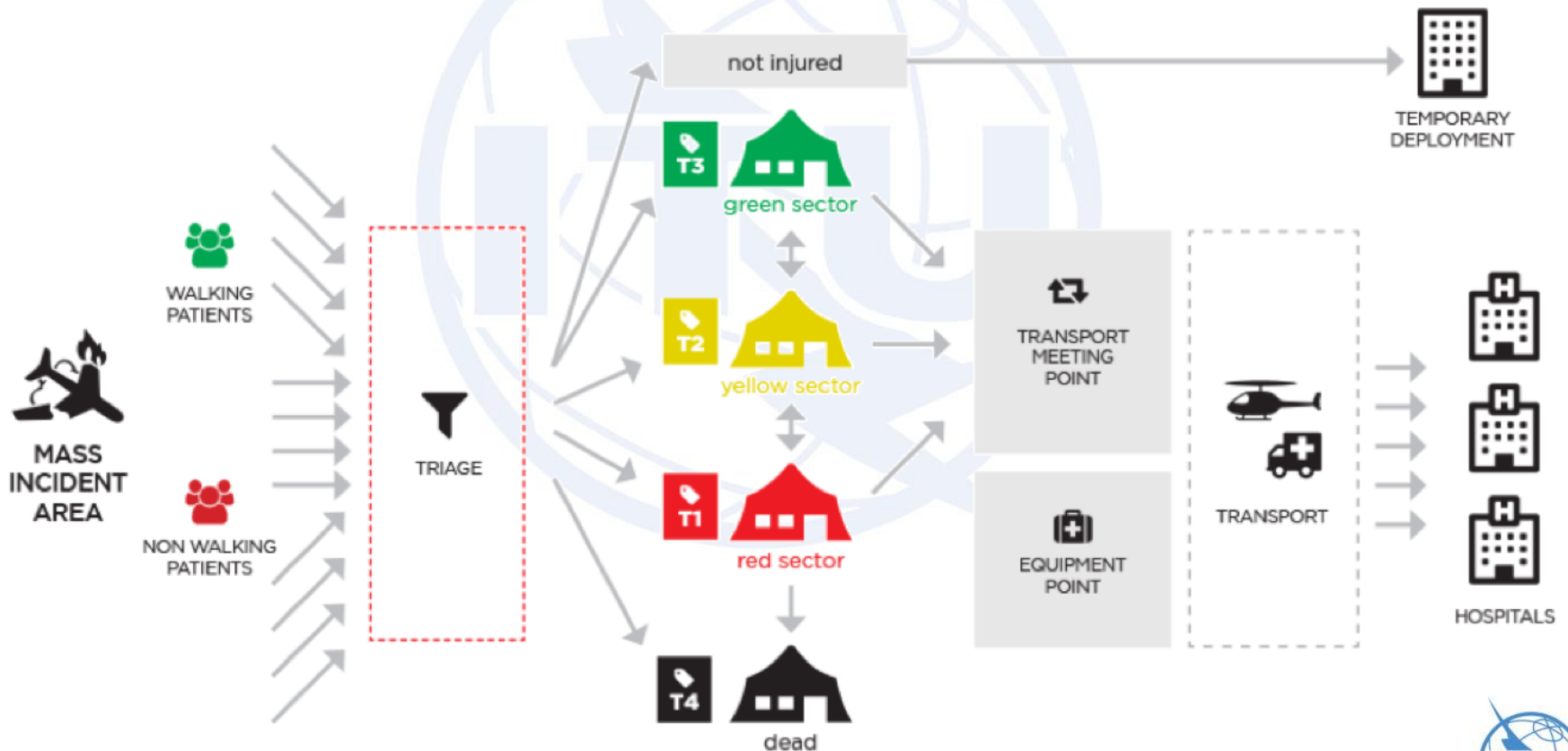
Experience from Mass Incident Exersizes in Slovenia

- Stožice Terorist Attack
  - Largest 350 patients
  - Local WiFi/4G GW
- Tlake Train Accident
  - Live Streaming
- Brnik Airplane Crash
  - Improved Workflow
- Novo Mesto MRMI 2x
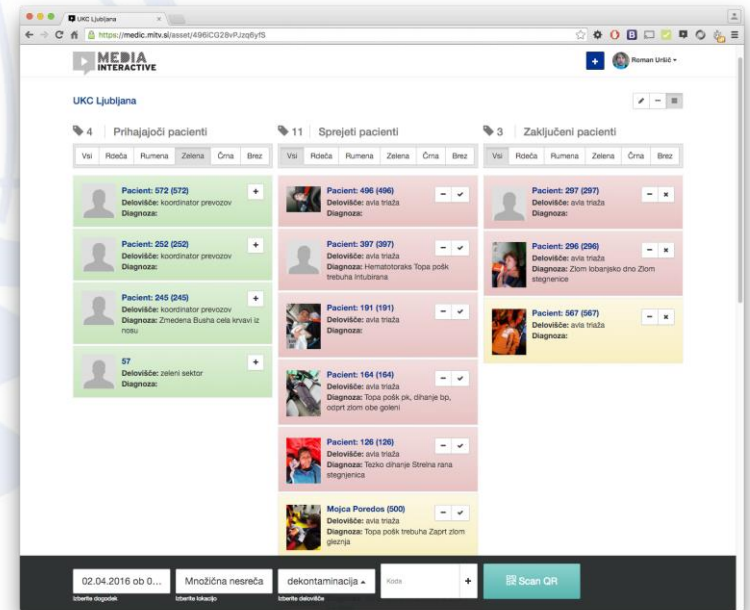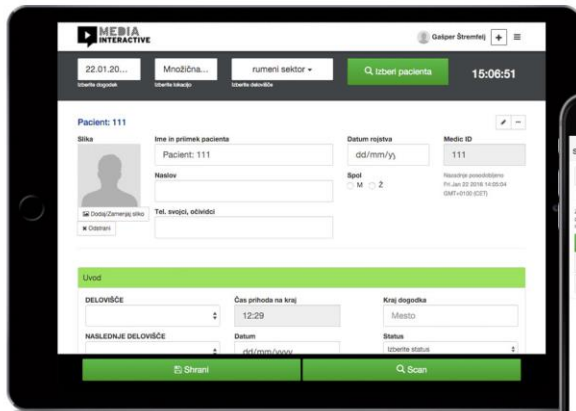 - Comparative analysis
- Bled, Stan

HOME

Daily Emergency Operations

MCI Emergency Operations
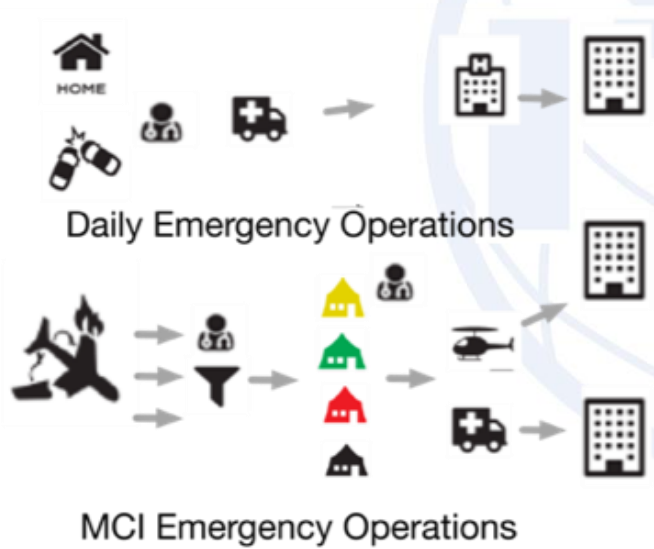
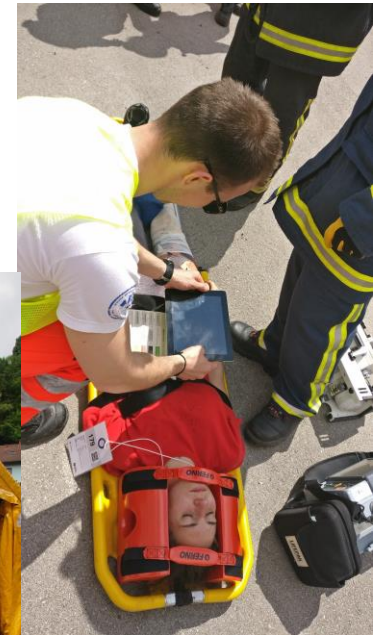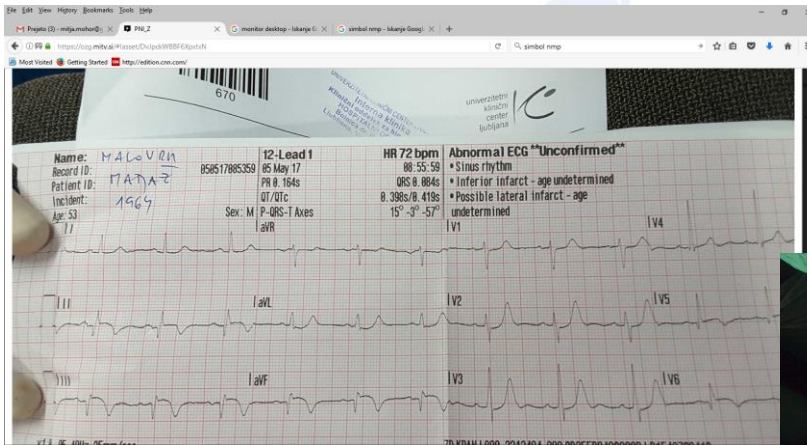# Transition from Paper and Walkie Talkie to Digital Collaboration
Dramatic Operations Change

Wide Variety of User Experience

- Super simple triage on smartphone

- Local Coordination on Tablet

- Multi Screen in Center

Operations Center Trial Setup

From Live Action

Improve Digital Skills by Introduction of Daily Intervention Support

Daily Emergency Operations

MCI Emergency Operations

- In regular operation for 18 month in Gorenjska region with 100.000 people
- 7 Urgent Centers and 7 clinics in Ljubljana UKC
- Integration with HIS
- 20 Urgent and 40+ non urgent actions per day
- Outstanding user response
- Advanced learning center
- New projects in pipeline
- Paliative workflow and data

Functional Architecture for Emergency Collaboration in Slovenia
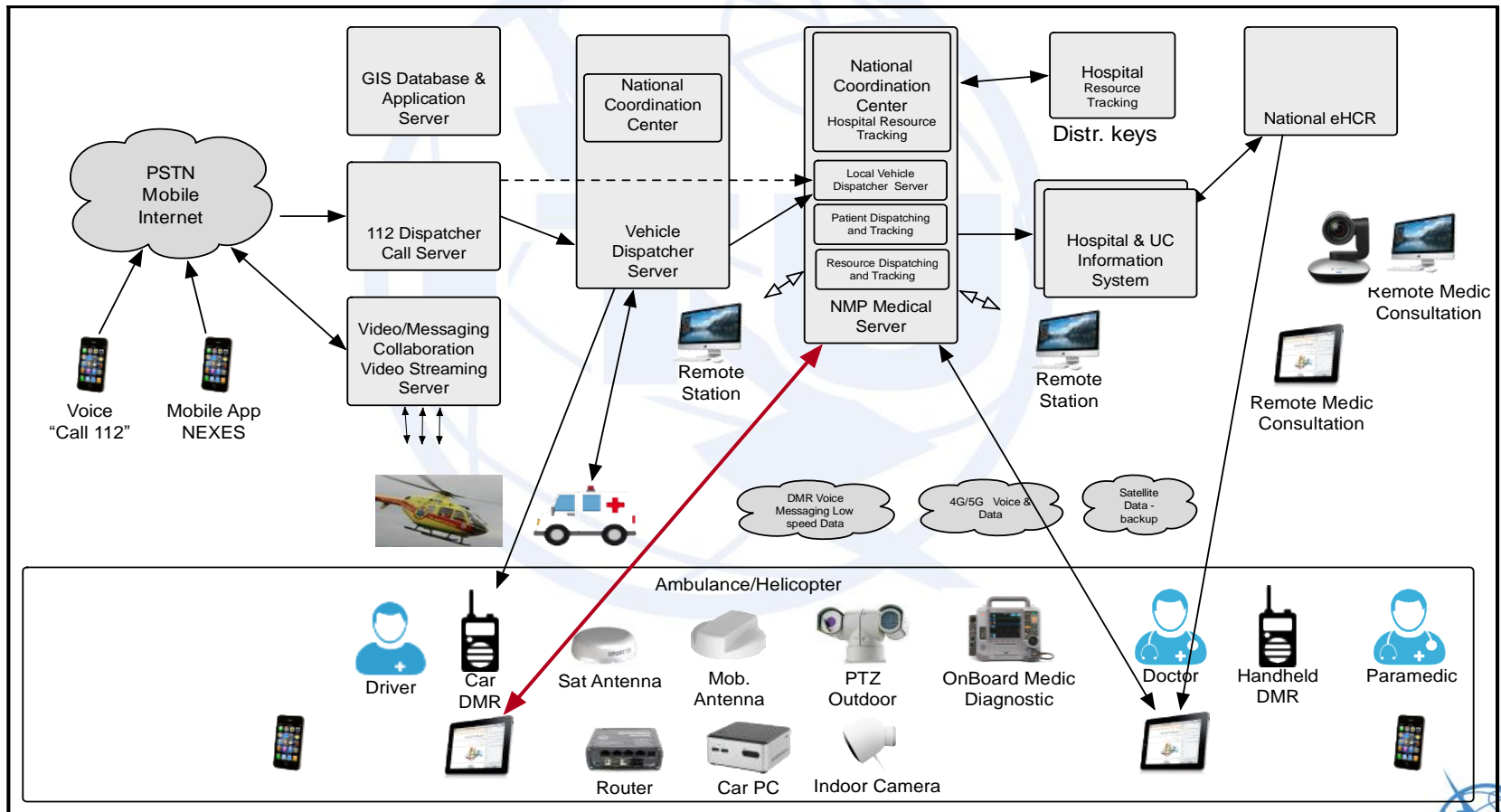
Functional Architecture for Emergency Collaboration in Slovenia
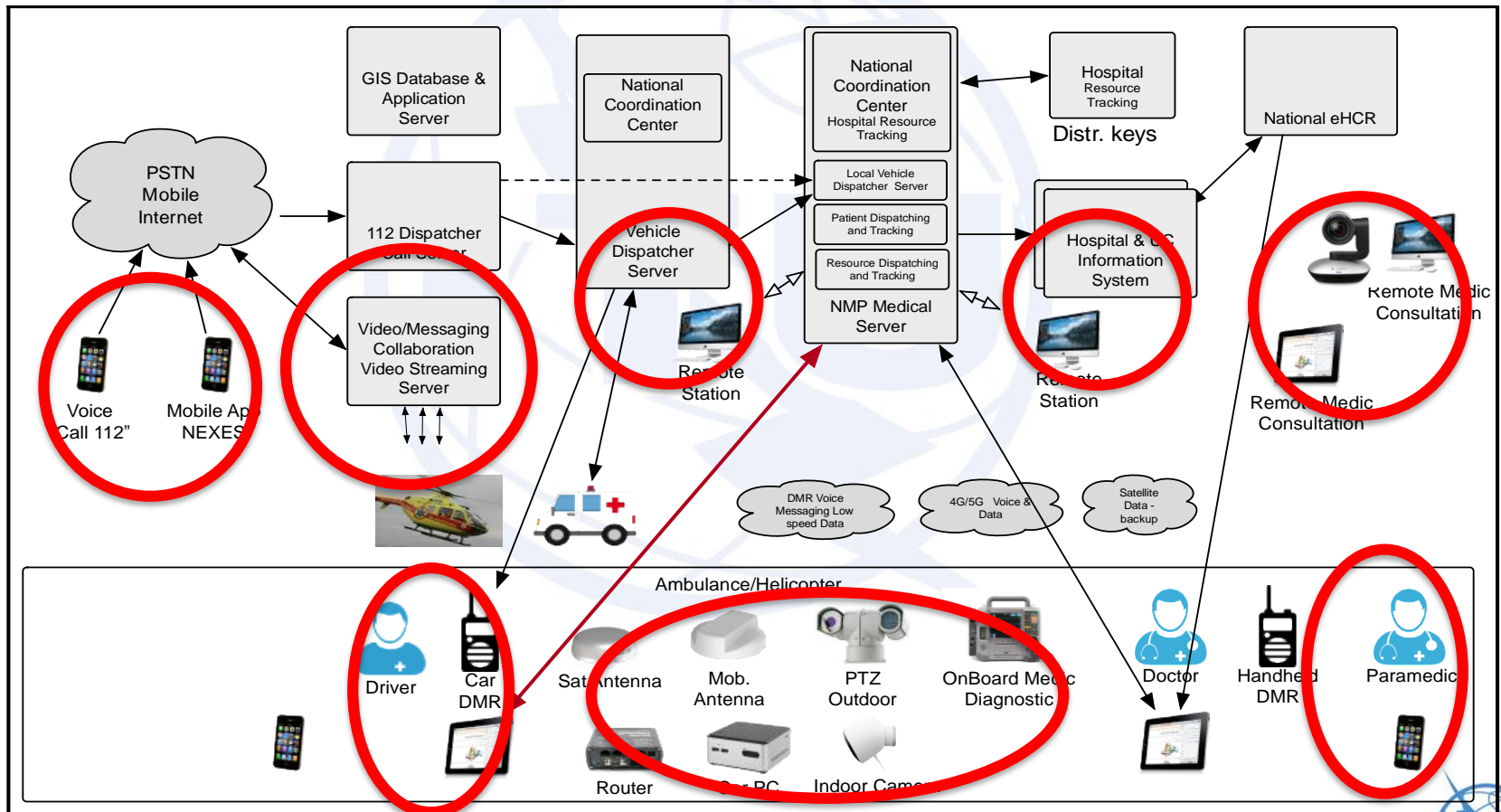
Unified User Experience on all Tools and Devices

Functional Architecture
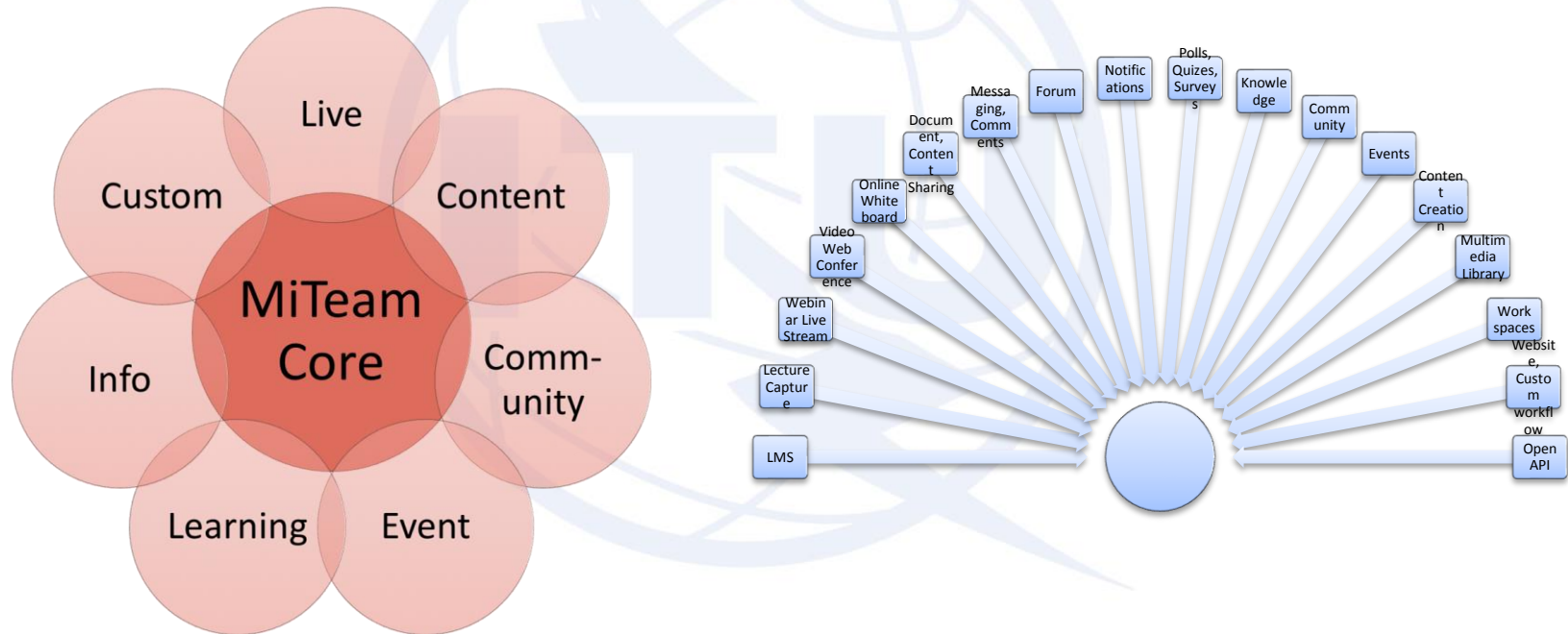## Digital Collaboration Platform MiTeam
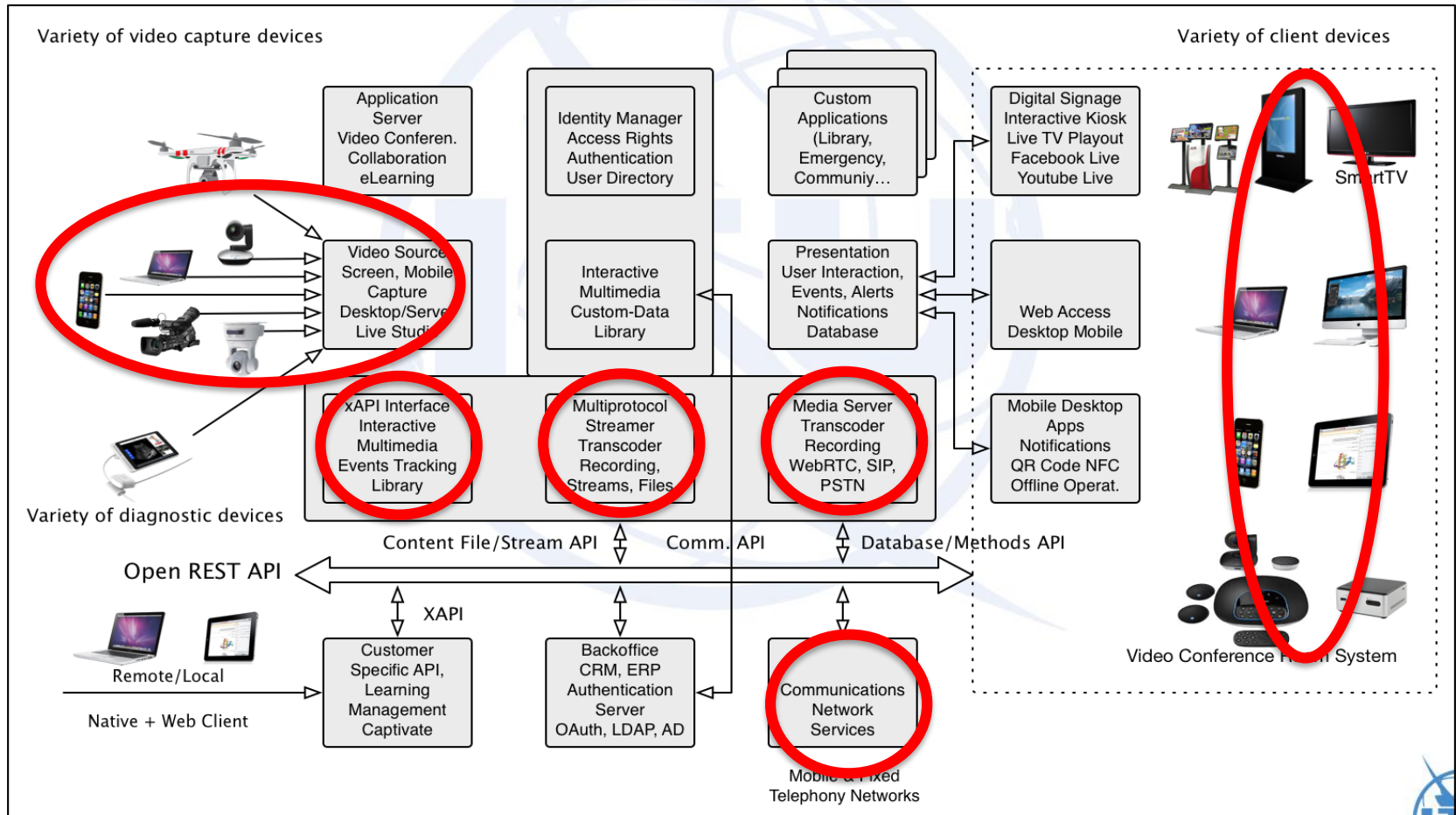
Key Technologies of
Digital Collaboration Platform

- Mobile – interactive HTML5
- WebRTC evolved to production quality fully integrated into custom workflows and all devices
- WebRTC Sever and PSTN GW
- XAPI (TinCan API) & Learning Records Store
- Big Data: detailed 360 deg tracking, open analytics, instant reporting
- Advanced content and creation tools– HTML5, XAPI, Mobile, Augmented reality
- Open API and customized interfaces

Future Challenges for Mass Incident Digital Collaboration

- Improve situational awareness with advanced workflows and GUI
  - Operations Center Local Command Center Hospital
- Integrate IoT devices such as Bracelet and Portal Scanners
  - Minimize human monitoring
  - Constant observation.and better precision , location
- Improve multimedia experience and support
  - Better video coding, WebRTC improvements
  - Addition of AR features
- Provide reliable and robust communications
  - Introduce local and independant 4G/5G data switch
  - Local server with optimized redundant operation
- Improve tracking, analytics, simulation and immersive learning
- Internationalize operations - H2020 SME Support

SEAL OF EXCELLENCE

European Commission

Certificate delivered by the European Commission,
as the institution managing Horizon 2020,
the EU Framework Programme for Research and Innovation 2014-2020

The project proposal 806863, ETIMan

Emergency and Triage Information Manager: User-friendly digital support for emergency and triage teams

Submitted under the Horizon 2020's SME instrument phase 2
call H2020-SMEInst-2016-2017 (H2020-SMEINST-2-2016-2017) of 18 October 2017
in the area of SMEInst-01-2016-2017

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