

EMS Telemetry over AG: from ambulance to ER

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Argonne National Lab



University of Chicago

Active ABC Lab Collaborators

- Participating Groups
 - Futures Laboratory of ANL
 - The Computation Institute of Argonne National Laboratory (ANL) and The University of Chicago
 - The University of Chicago Hospitals
 - UC Department of Surgery
 - UC Department of Anesthesia
 - UC Developing Center for Patient Safety
 - UC Department of Radiology
 - UC Department of Emergency Medicine
 - Rhode Island Hospital Medical Simulation Center
 - University of Illinois at Chicago Electronic Visualization Laboratory
- Volunteer and contracted support
 - More than 5 other major medical centers nationally
 - General Devices
 - International Emergency Medicine Disaster Specialists
 - Peter Jurek, MAMS
 - Colin Walsh, Medical Student
 - Victor Tsirline, MD
 - William McGaghie, PhD
- Direct Funding
 - National Library of Medicine
 - University of Chicago
 - University of Chicago Hospitals
 - Department of Surgery

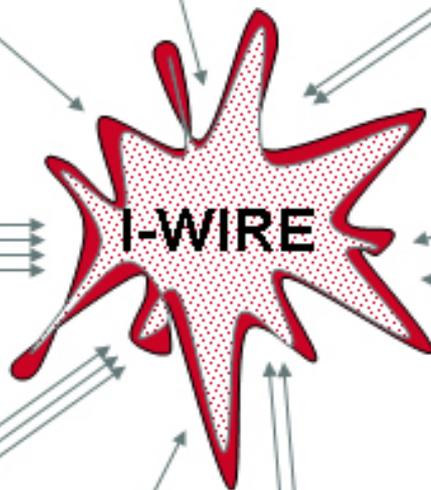
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Radiology



Hands Free Environments
Mini Head Mounted Display

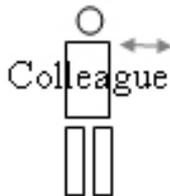
ANL
GRID Development



wireless

wireless
cellular
broadband

AG Nodes (stereo)
Conference Rooms
Sim Centers



DaVinci Robot

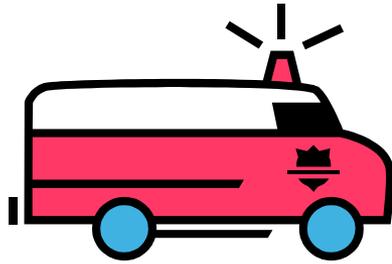
Hardened Remote Display
Ambulance

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EMS Telemetry

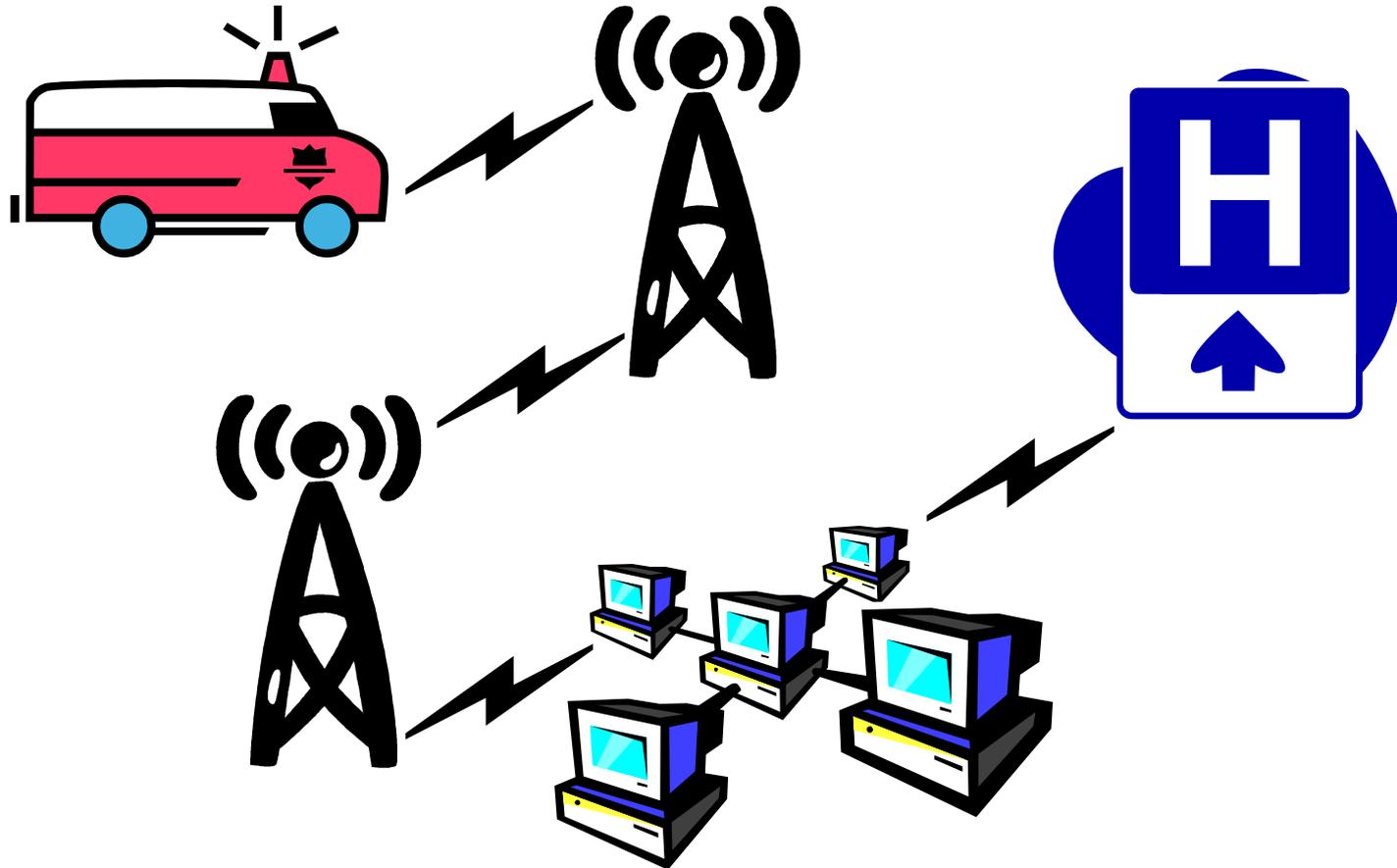


Why have online medical control?

- Complex clinical scenarios
- Difficult to interpret EKG rhythms
- Assistance in patient monitoring
- Destination decisions
- Assistance with non-transports



EMS Digital Telemetry



Gathering of Eagles Demo



<http://general-devices.com/eagles.htm>

Collaborators:

UTSouthwestern - Drs. Fowler and Pepe
City of Garland Texas - Fire Dept.
Philips - MRx monitor/defibrillator
General Devices - Rosetta
Motorola - Mesh Network

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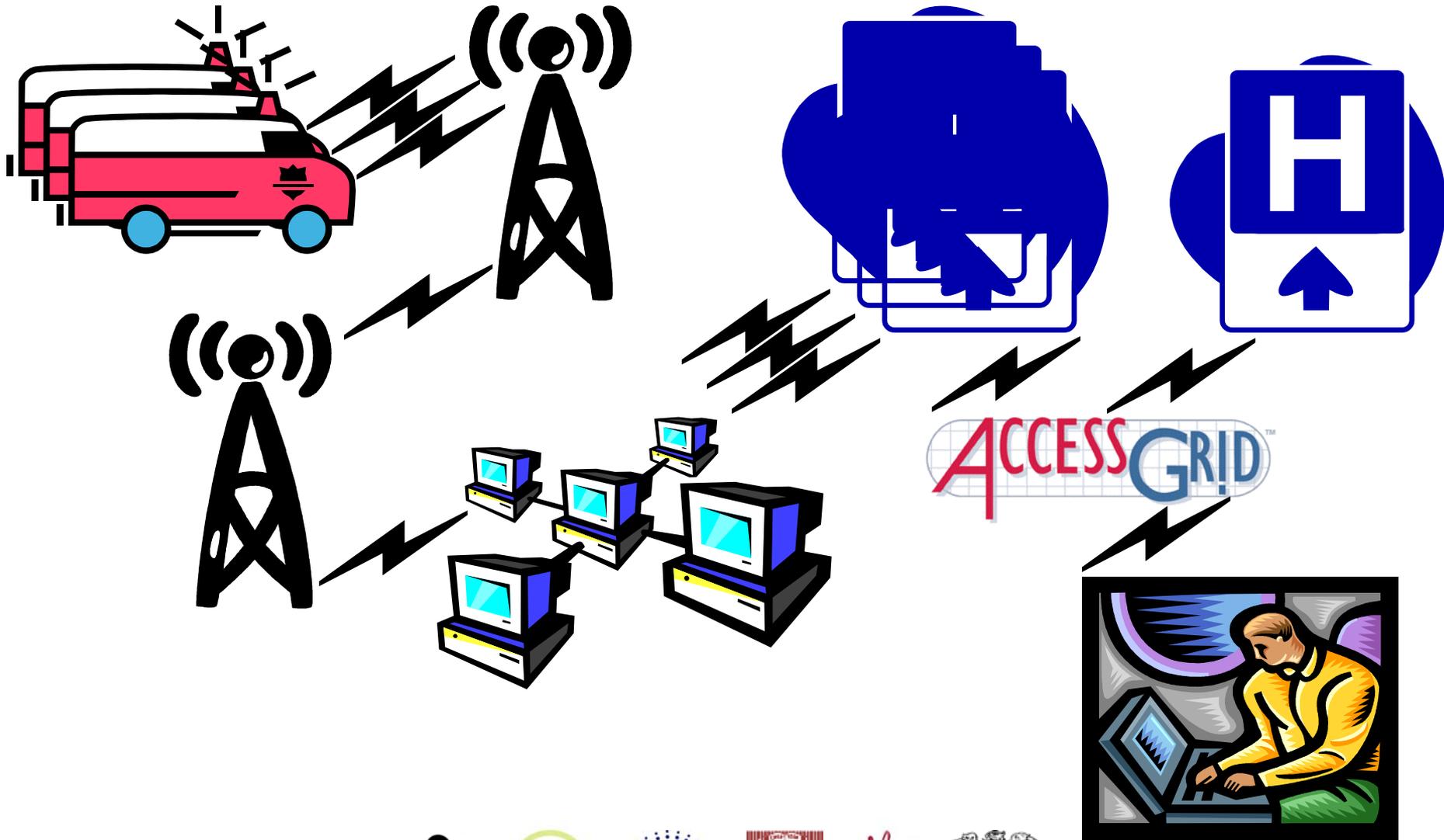
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Why add distributive collaboration to online medical control?

- Real-time evaluation and management of critically ill patients by multiple specialists
- Assembly of multi-victim information
- Assistance in diagnostics (i.e. ultrasound)
- Transfer of care hand-offs
- Homeland security command and control



Future EMS Telemetry With AG

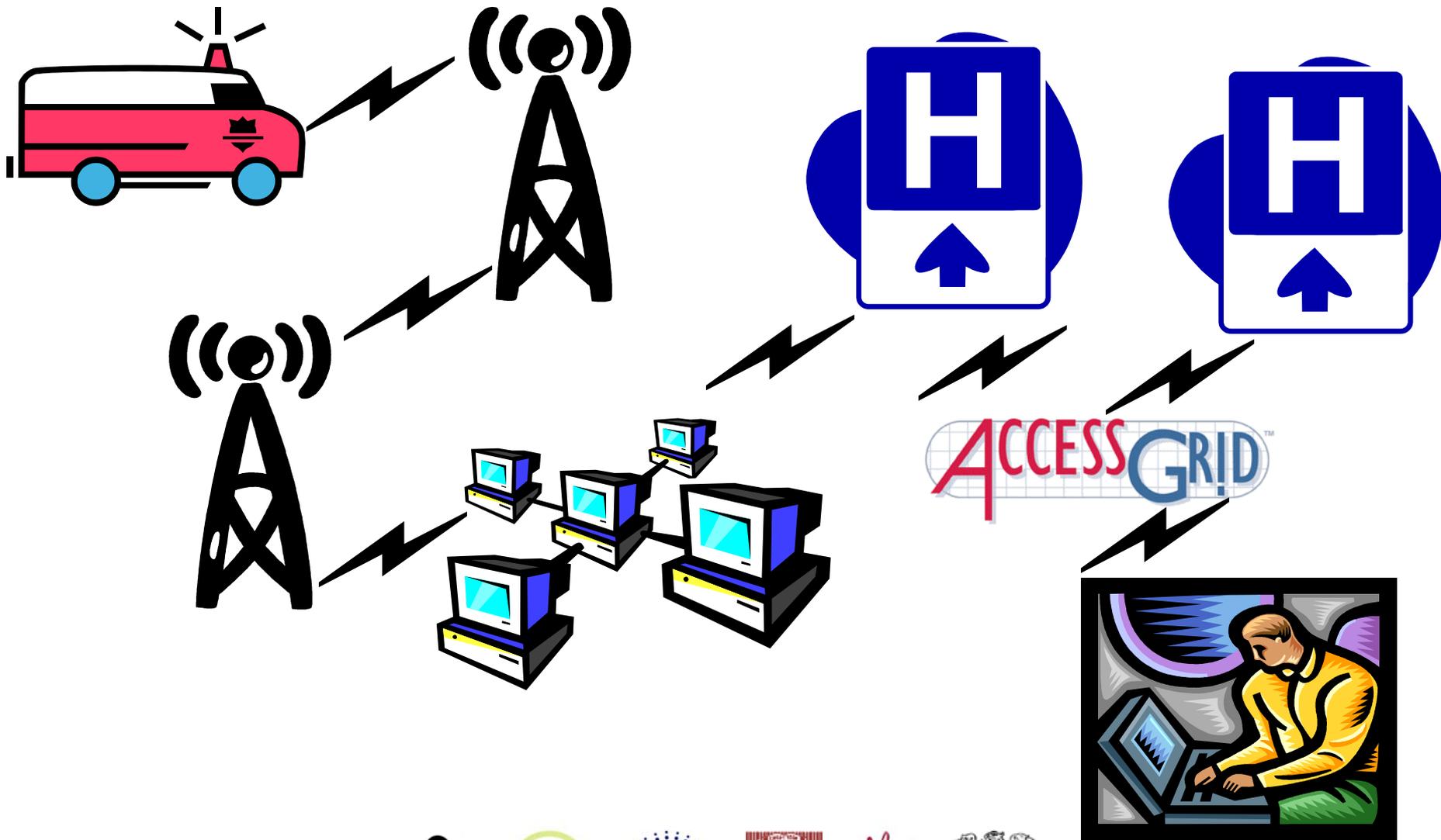


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