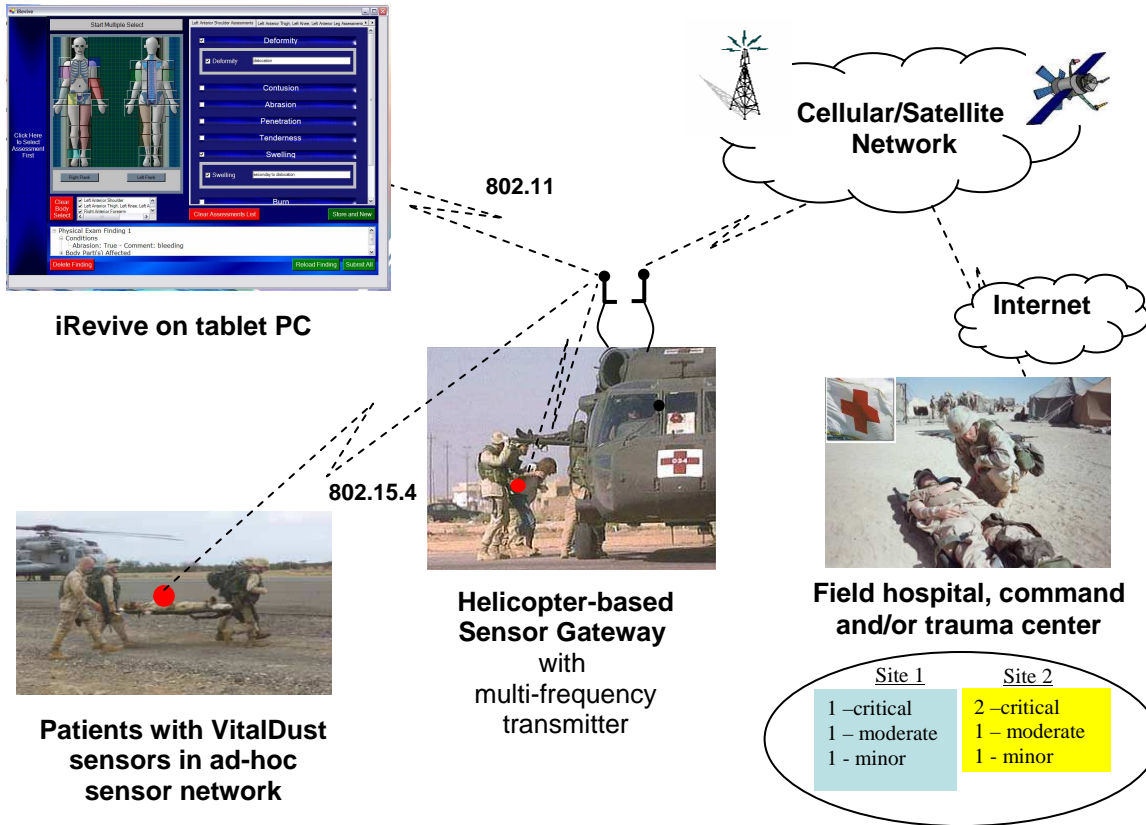


## iRevive: Airmedical Patient Care System with Wireless Sensors

iRevive is a robust pre-hospital patient care system being developed by 10Blade, Inc. with Boston MedFlight, one of our nation's largest certified airmedical transport services. The iRevive system is composed of small wireless vital sign sensors, a sensor network, ruggedized tablet PCs to input patient data, a sensor gateway for sensor data processing, and one or more command centers.



10Blade's **GPS-enabled pulse oximetry sensor nodes** are mote-based to allow **ad-hoc sensor networking** and the **encryption of sensor data**. They automate the capture of each patient's geo-location, time and vital sign data and are specially designed for mass casualty events. Each sensor node includes a processor, 128K of program memory, 512K of nonvolatile flash memory, and a 250 Kbps radio operating at 2.4 GHz utilizing the 802.15.4 ZigBee specification. The radio has a wireless range of 30-100 meters. A wireless 3 lead EKG is in development.

A unique feature of the iRevive application is its use of knowledge-based rules to guide complete and accurate data collection, including streaming vital sign data, procedural information and response to treatment. The wireless sensors and sensor gateway add real-time physiologic information to the developing patient care record, to provide robust local and centralized situational awareness.

**10Blade, Inc.** ([www.10blade.com](http://www.10blade.com)), under research contracts from the NIH, NSF and DOD, develops advanced technology, software, and sensors for the management of acutely ill and injured patients.