Mobile App Technology for Situational Awareness & Common Operation Picture

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Director Homeland Security & Emergency Management

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Director
Agenda

1. UCSF’s Story: Paper Emergency Status Reporting to Mobile Technology.

2. SmartBridge Technology and UCSF Emergency Management Partnership

3. Crisis 360 Situational Awareness App
Situational Awareness Is:

“the ability to identify, process, and comprehend the critical information about an incident.”

“More simply, it is knowing what is going on around you.”

“Providing the right information at the right time.” (NRF)
“a shared situational awareness that offers a standard overview of an incident and provides information in a manner that enables incident leadership and any supporting agencies and organizations to make effective, consistent, coordinated, and timely decisions.”

(FEMA National Incident support Manual)
Know Your Critical Infrastructure and Key Resources

- Medical Facilities
- Utilities
- Communications
  - 911 Centers
  - Telephone System Central Office
  - ITS Network
  - Radio/TV stations
- Police/Security & Fire
- Emergency Operations Centers
- Research facilities
  - Select Agent Facilities, BSL, Animal Units, Chem & Rad
- Transportation System
- Schools producing critical skills graduates
  - Health Care, Cyber Defense, Math & Sciences
Know Your Population

- Active ID Cards holders
  - Staff
  - Faculty
  - Students
  - Affiliates (contactors, vendors & employees, volunteers, etc)

- Visitors
  - Patients, business, event participants

- Through Traffic
Know Your Locations

- Decentralized Campus
- 200 owned & leased facilities
- 500 worksites requiring EAPs
- 220+ SOM SOD clinical sites
- Sites located in other cities and counties (and States)
Know Your Organizational Structure

- 12 “Control Points” (Primary Org Level)
- 138 Departments
- 2296 Divisions
- Approx 800 “staffed” Divisions
Know Your Sources of Emergency Reports

- EAP Emergency Coordinators
- Building Emergency Coordinators
- Facilities personnel & Building Inspection Teams
- Campus Fire & Police
- EH&S
- CERTs
- Shelter Teams
- Hospitals, Clinics and Triage sites
Emergency Status
Assessment & Reporting

UCSF’s Challenges

1. No plan or process to collect damage and injury reports (PD, EAP, Bldg Inspection Team)

2. No single reporting format to collect data. (EAP ESR, ACT forms, FM)

3. No system to collate emergency data (EOC Sit Status)
Emergency Status Reports
Information Overload!
EOC Information Bottleneck
Demand for Information
“Situational Status”

- Expectations & Assumptions
  - EOC Director, Policy Group Chancellor
  - City EMA, County EMA, State EMA & FEMA
  - Deans, VCs, AVCs, AAVCs, IW2BVC

Feed the information Monster
Feed Me NOW
Standardize Data Collection

Essential Elements of Information:

- Life Safety
- Building/Facility
- Utilities
- Critical Infrastructure
- Operations and Services
- Status (Immediate, worsening, stable)
# Emergency Status Report

![UCSF logo](image)

## UCSF Emergency Status Report and Update

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time:</th>
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<tbody>
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### Event Name:

*  

### Team Name (if applicable):

*  

### Is this an update to a prior report?

* Yes *

### Preparer's Contact Information:

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone #</th>
<th>Fax</th>
<th>Cell #</th>
<th>Pager</th>
<th>Email</th>
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### Building (See Building List)

- Description:

### Essential Information

**Life Safety:**

- Injured
- Trapped
- Missing
- Deceased
- Number in shelter(s)
- Number needing shelter

**Patient Care:**

- What is the impact upon patient care?

**Medical Centers:**

- List names below

**Clinical Services:**

- List below

**Animal Care:**

- What is the impact upon animal care?

**Animal Facilities/Labs:**

- List Animal types below

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1. Type of Emergency: fire, building collapse, earthquake
2. UCSF Medical Center – Palmeros, UCSF Children's Hospital – Palmeros, UCSF Medical Center – Mt Zion, Langley Porter Psychiatric Hospital – Palmeros
3. Ambulatory Care Clinic, Urology, Dental, Student Health, Occupational Health, Mental Health, Vision
4. Primates, felines, canines, rodents, fowl, other (describe)

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Emergency Status Report and Update 01 30 2012.docx

Page 1

UT-Chattanooga: Best Practices HEEM
Creating an Information Flow Process
APPENDIX ESR
Emergency Status Assessment & Reporting

Subject |
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Purpose | Page |
Emergency Plans/Resources | ESR-1 |
Emergency Coordinators (EAP & Mission Continuity) | ESR-2 |
- EAP Emergency Coordinator | ESR-2 |
- Site Emergency Coordinator | ESR-2 |
- Mission Continuity Plan Contact | ESR-3 |
Emergency Coordinators | ESR-3 |
- Division | ESR-4 |
- Department | ESR-4 |
- Control Point | ESR-4 |
Academic Coordinator | ESR-5 |
Critical Programs Coordinator | ESR-5 |
Emergency Status Reports | ESR-6 |
Flow of Information | ESR-6 |
Emergency Status Report Example | ESR-8 |

1. Purpose

Each Control Point shall ensure the emergency procedures and functions are in place within their respective Departments, Divisions, Units and labs in order to promote:

- Standardized information collection tools.
- Systematic process to collect location based information: Room, Floor, Building, and Campus from EAP teams to EOC.
- Systematic process to report organizational impact bottom-up through units/labs to Division, Department, Control Point to EOC.
- Systematic process to disseminate information from EOC to Community (staff, students faculty and affiliates) and Leadership (Executive Committee/Policy Group).
ESR Flow EAP Teams at EAA

UT-Chattanooga: Best Practices HEEM
ESR Flow EAP/CERT at ICP
ESR Flow ICP to EOC
ESR Flow EOC to Deans & VCs
It is all enough to make my
Smartbridge is a **full-service** technology consulting firm providing technology **strategy** and **implementation** services to businesses around the globe.

Our clients range from emerging mid-market businesses to Fortune 500 companies and public institutions.

Our clients hire us to own and solve their toughest projects and they retain us because we keep our promises consistently.
Smartbridge, Restaurants & Hurricanes ...

**Current State - Old, Archaic Methods and Processes**

- **Unreliable**
- **Delayed Info**
- **Inaccurate**
- **No COP**
Hurricanes

Building Damage

Real-time Tracking

Snow Storms

Days to Recover

Business Interruption

Open/Closed

Customer casualties

No Water

Floods

Damage Pictures

No Connectivity

Legal Exposure

Content Damage

Structural Damage

Insurance Claim

Business Planning

Government Evacuation

Customers Impacted

Community Sentiment

Media Exposure

Power Loss

Damage Pictures

Insurance Claim

Government Evacuation
We are born to move around

“We no longer need to be tethered to a desktop computer in order to use the internet to interact with the world around us”

- Hamilton Chan, CEO & Founder, Paperlinks
Disruptive Technologies are Impacting Our Lives

Source: Brian Solis - Disruptive Technology and How to Compete for the Future
Emergency Management and Situational Awareness

Future State – Leverage Disruptive Technologies to establish real-time emergency management capabilities

Secure Cloud Servers and Storage

CRISIS 360™
Crisis360
Improving Emergency Management processes – efficiency, accuracy and timeliness

1. Dashboards
   Understand impact in easy to use dashboard and direct response based on critical information

2. Real-time Information Collection from First Responders
   First responders provide real-time updates. Disseminate information in real-time to all stakeholders

3. Situational Awareness
   Get up to date situational information. Analyze damage and impact images collected from first responders

4. Any platform of choice
   Use tablets, smartphones and web to manage and respond to information
Emergency Managers get Consistent Timely Intuitive Actionable information Anywhere Anytime
Crisis360 – Secure, Cloud apps on Mobile and Web

- Fully configurable fields and tabs
- FlexOrg™ tracking
- Annotate
- Geo-Maps
- Complete History
- CommandCenter™

Capture and annotate pictures
- Messaging
- Dashboards
- Reports
- Export to Excel
DEMO