



**Department of Public Safety
Emergency Services**
Parking Services
Police Services
Support Services
University Hall, Suite 238
PO 210160
Cincinnati, OH 45221-0160

Emergency Communications in Critical Incidents

Communications Matrix

Phase	Time Frame	Description
Immediate	1 to 30 minutes	Tactical instructions to occupants
Emergency	15 to 60 minutes	Emergency announcements
Advisory	1 to 24 hours	Updates, warnings of potential threats, announcements

Communications Tools

Public Address Systems (in-building voice announcements)(Immediate)

Pros

- Reaches vast majority of persons exposed to threat in real time (see Cons for limitations)
- Requires no special equipment or preparation on part of public
- Allows specific instructions for incident in progress, tailored to specific locations

Cons

- Expensive infrastructure, unless included as part of existing fire alarm systems
- Does not reach hearing impaired population

Text Messaging (text messages to cellular phones)(Emergency)

Pros

- Relatively inexpensive per message to institution
- Message delivery generally in 1 to 5 minutes
- Allows specific instructions for incident in progress

Cons

- Subject to availability of cellular service (prone to overload in major emergencies)
- Typically limited to 140 characters
- Requires subscription by end-users, upkeep of database of numbers subscribed
- No means of tailoring message to location of person
- Not all cellular phones or service packages allow text messaging
- Many cellular services charge to deliver text messages
- Does not reach visually impaired

E-mail (text message to e-mail accounts using bulk mail lists)(Advisory)

Pros

- Relatively inexpensive to institution per message
- Generally no cost to end-user (assuming existing e-mail account)
- Message delivery generally in 1 to 5 minutes
- Allows specific instructions for incident in progress
- Allows detailed messages of long length

Cons

- Requires person to be at their desk or otherwise using their e-mail
- Requires subscription by end-users, except for institutional accounts
- No means of tailoring message to location of person, although some tailoring may be done by pre-established lists (ie student vs. staff)
- Does not reach visually impaired

Reverse 911 (voice message to telephones by geographic location)(Emergency)

Pros

- Message delivery generally in 1 to 5 minutes
- Allows specific instructions for incident in progress

Cons

- Requires person to be at their desk to receive call
- Subject to availability of phone service (prone to overload in major emergencies)
- Relatively expensive infrastructure required
- Requires database of all telephones on campus
- Does not reach hearing impaired

Voice Mail (voice message to voice mailboxes)(Emergency, Advisory)

Pros

- Relatively inexpensive (if institutional phone system is configured to provide this service)
- Message delivery generally in 1 to 2 minutes
- Allows specific instructions for incident in progress

Cons

- Requires person to be at their desk and to retrieve phone message
- Not all campus phones have voice mail service
- Does not reach hearing impaired
- Does not allow specific message by location

Web Page (text messages on institutional home page)(Emergency, Advisory)

Pros

- Relatively inexpensive
- Allows detailed information delivery
- Allows links to additional information
- Allows simultaneous delivery of multiple messages

Cons

- Subject to availability of Internet and/or LAN service (server may overload under heavy use)
- Requires longer lead time to put in place (30 to 60 minutes)
- Requires higher level of training/ability on part of person creating the message (must be able to edit web page and upload the information)

Public Media (television, radio, newspaper)(Emergency, Advisory)

Pros

- Inexpensive
- Wide spread reach to general public
- Reaches persons who are off-campus

Cons

- Generally long delivery times
- Institution does not control actual message delivered
- Public must be watching TV, listening to radio to receive the message

Highway Alerting (text messages on highway sign boards)(Emergency)

Pros

- Relatively inexpensive
- Message delivery generally in 1 to 5 minutes
- Reaches population who may be en-route to campus

Cons

- Allows only very short message
- Limited to reaching those who are driving on Interstate highway

Outdoor Sirens (outdoor siren or voice warning)(Immediate)

Pros

- Immediate message delivery
- Reaches outdoor population

Cons

- Expensive infrastructure
- Does not allow delivery of instructions, unless voice capable system is used
- Does not allow instructions specific to location by building or area
- Does not reach hearing impaired population
- Requires no special equipment or preparation on part of public

Combined Alerting System (software to allow delivery to multiple platforms)(Emergency, Advisory)

Pros

- Message delivery generally in 1 to 5 minutes, assuming sufficient phone lines to system
- Allows specific instructions for incident in progress
- Used multiple platforms to reach end-user (telephone, text messaging, e-mail, pager)
- Simplifies task of person initiating message by allowing one entry to generate multiple deliveries

Cons

- Requires person to subscribe to service
- Database upkeep is extensive
- Subject to availability of phone service (prone to overload in major emergencies)
- Expensive infrastructure required if owned by institution
- High cost per message if outsourced provider used
- Does not allow instructions specific to location of person