

# **Campus Emergency Communication Test on 2/25/2011**

## **Review Summary**

March 23, 2011

The College conducted a campus wide test of emergency communication resources on February 25, 2011. The test was a qualified success, with notification provided across several fronts in a timely, efficient manner with positive feedback from participants and observers. A procedural error prevented the full distribution of the initial text message. All other aspects of the test were fully successful.

The last campus-wide test was conducted on December 4, 2009. The last time the systems were fully employed in response to an incident was September 5, 2010. [SEE separate report: Brief analysis of emergency messages sent early morning of 9/5/2010.]

Note that there is a small-scale test of the e2Campus system by Public Relations (PR), Campus Safety (CS), and Information Technology (IT) on a weekly basis, and that the carillon link is tested by Campus Safety at the beginning of each shift.

The campus was advised of the scheduled test on 2/22 by email. A reminder email was sent on 2/25. Neighbors and city emergency service personnel were also notified prior to the test. The test was conducted between 3:00 and 3:15 p.m. and included use of e2Campus (text, email, and voice), Groupwise campus email, desktop notification, and the carillon. The testing was planned by, and at the direction of, Campus Safety, Public Relations, and Information Technology. This is the third campus-wide test of emergency communication systems. Note that, each time such a test has been planned and executed, the scope and capabilities of our campus emergency communication systems have advanced significantly from the time of the prior test.

Desktop notification testing was limited to all computers in Moyer Hall and Ettinger Hall, to allow thorough observation by volunteer IT personnel.

### **Messaging summary:**

- 2,172 text messages were sent to all e2Campus subscriber cellphones. Most of those messages were received within 3 minutes. [logs attached]
- Email via e2Campus (subscribed to by 445 users) was received by all valid subscribers within 1 minute. [logs attached]
- Email via Groupwise (subscribed to by 3,700 users) was received by all valid subscribers within 1 minute. [logs attached]
- A pop-up desktop warning (with audible alert tone) was sent to 208 desktops [including techwalls] in Ettinger and Moyer within 1 minute. [logs attached]

# **Campus Emergency Communication Test on 2/25/2011**

## **Considerations, Lessons Learned, and To-Do List**

March 23, 2011

- A procedural error prevented the full distribution of the initial text message. The test parameter was to use e2Campus to send a text message to all registered cell phones campus-wide, but to send the voice message to just classrooms in Ettinger Hall and Moyer Hall. This was done successfully for the ‘all clear’ message, but not for the initial message. This led to a proposed revision of procedures within Public Relations. The revision would provide for the confirmation of the success of each messaging task before the next messaging task is begun. Such confirmations would be done using each messaging system’s sent/history logs.
- IT, PR and CS will review the means and efficacy of integrating the messaging tasks.
- The current procedure within the dispatch area of Campus Safety uses the receipt of the Groupwise-originated emergency email message from PR as the impetus for triggering the carillon. This will be changed to EITHER that message or the e2Campus-originated emergency email message from PR as the impetus for triggering the carillon. A ‘group’ e-mail account should be established for logging in of e-mail on the main computer used by dispatchers. This e-mail would be set up to receive both the E2campus notification and the campus e-mail notification and when situations arise that require use of the siren the trigger for the activation could be receipt of either message. Thus if either messaging method fails, the first to be successful is the basis for triggering the carillon.
- As the emergency communication capabilities and functionality grow, testing must evolve to meet the increasing complexity and number of devices involved. Testing more often, at a building level appears to be one basis for a thorough test of all resources. The feasibility of this approach will be investigated. While all systems are tested independently, and often, as part of regular training, we recommend a campus-wide announced test once per semester, varying time-of-day to test various campus conditions.
- We continue to broaden the resources available for use in emergency communication. The PR VP now carries a smart phone and has conducted weekly testing from the device. We also have access to an 800 number, 24/7, as a back-up method for sending messages via E2 campus.
- We are nearing the completion of multi-band campus emergency communication resources to service faculty, staff, and students in a variety of emergency situations. The means to do so effectively within public venues on campus is still a work in progress. Advanced Fire Protection systems, namely the Simplex

4100U systems, provide for full-coverage Public Address capability within a building [from the enunciator panel]. Additional central equipment could allow 'remote' announcements within a 4100U-protected building. Such buildings include Seegers, Rehearsal House, and Hillel/Sociology, Anthropology. Procedures must be developed and CS officers trained in the use of such capabilities. Research must be performed re possible remote access to these PA capabilities and the practicality such use.

- Research and testing must occur to determine if I Can Simplex 4100U units handle converting text to voice through e2Campus? Buildings with voice notification systems could receive the voice message of the potential danger.
- Digital signage continues to expand on campus. A standard developed for the servery in Seegers has expanded to Hillel and, soon, to Seegers and possibly the CA and Pavilion. R&D must be completed to include these signs in the campus emergency communication suite.
- Desktop (pop-up) messaging - This tool is currently deployed to more than 600 campus PCs, mainly in offices and classroom techwall computers. For the purposes of this test, a message was sent to all PCs in Ettinger and Moyer. The message was confirmed as sent to 208 desktops in less than a minute. This product will be expanded to all College-owned computers during the spring semester. Current licensing allows the option to offer this to students as a download for their personal computer. This will be reviewed.
- Technology to boost cellphone reception and UHF signals of emergency responders' radios (including those of our Campus Safety Dept.) has been successfully implemented in the lower level of Seegers Union. A proposal to extend this capability to other portions of campus buildings will be made for the 2012-2013 budget cycle.
- Due to the growing reliance on text messages by our campus users, we must consider the ability to receive text messages during an emergency. To that end, we have subscribed to licenses for UTip from Omnilert, for evaluation and development.
- The College's percentage of student opt-in e2Campus subscriptions continues to be high, when compared to most other colleges and universities. Fortunately this continues, with the class of 2014. Following is a recap of current subscriber counts:

<b>constituency</b>	<b>subscriber count</b>
class of 2011	481
class of 2012	595
class of 2013	401
class of 2014	502
faculty	179
staff	355
Wescoe students	70

However, as we saw last fall, we need students subscribed during June Advising, in case there is an emergency situation that happens right before freshman move-in or during move-in week-end. This would best be done as a facilitated process – insuring that the immediate-cellphone-test process is utilized - perhaps in line with student ID pictures in Seegers. Attached is the Opt-In vs. Opt-Out recommendations from e2Campus.

As we plan the change of e2Campus participation from opt-in to facilitated-opt-in/opt-out, we must consider best means to also clean up the older information on file – see analysis for more information.

- A desktop notification should be set up on a secondary computer within the dispatch area but not on the main computer utilized by the dispatcher.
- An emergency phone should be installed within the Campus Safety office that can be set up to receive the routine Monday tests of the E2campus system. This phone should only be included in the test group and no other group as to not have it sounding in the event of an emergency.
- It should be noted that while testing the siren there was a ‘crackle’ emanating from at least one tower speaker (one facing east is believed to be the speaker). The speaker should be checked for damage or loose connections. Crackling may also be from too much sound being forced through system. Indications of test would indicate sound could be heard well beyond campus.

# **Campus Emergency Communication Test on 2/25/2011**

## **Analysis**

March 23, 2011

**Test Date:** February 25, 2011

**Test Time:** 1500 - 1515

**School Status:** In session

**Weather Conditions:** Overcast with a slight breeze; it had rained earlier in the day.

**Type of Drill:** Announced

On 25 February 2011, a test of campus emergency notification systems was conducted. The test was announced to the campus community. The test involved the campus outdoor siren, e2campus text message notification, classroom/office message notification, e-mail notification and text-to-voice notification to teaching space phones. Allentown Communication Center and Lehigh County Communication Center were advised of the test prior to this date, and reminded just prior to the test, because we were activating the campus siren.

The test began at approximately 1500 hours. PR was notified to send messages via e-mail and text message. When the dispatcher received the e-mail notification, the campus siren was activated. It sounded for the entire configured duration - three minutes.

Once all systems were tested, PR was instructed to send another e-mail and text message stating that the test was complete and everything was all clear. The test completed at approximately 1510 hours.

Following is an analysis of the test, based upon general feedback, designated participant reports, and system logs. The report is categorized by the method of emergency communication.

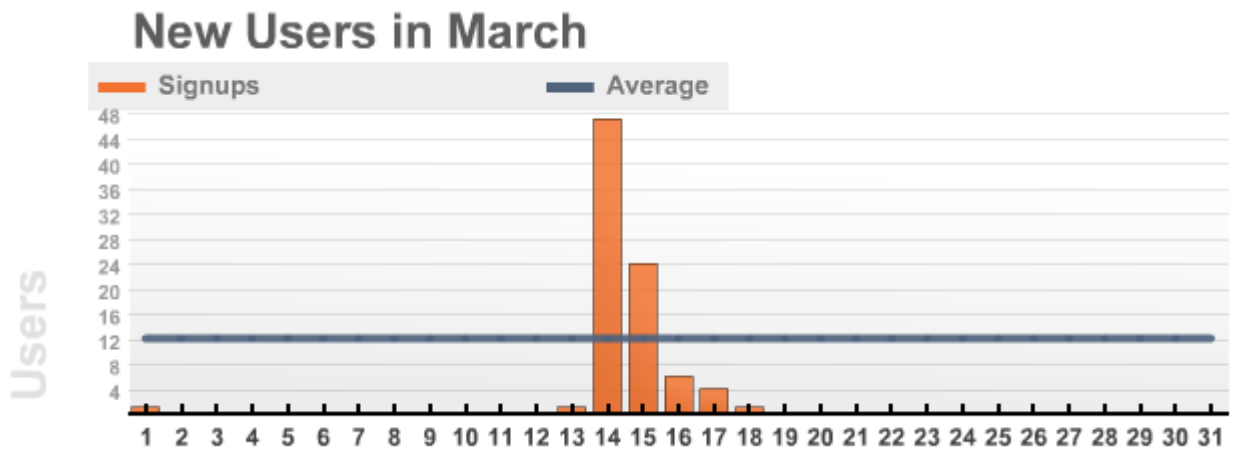
## e2Campus Text Messaging

2,172 text messages were sent to all e2Campus subscriber cellphones. 127 messages, or 6%, failed due to invalid information. Most of the remaining 2,045 messages were received within 3 minutes.

The messages were delivered to the following carriers:

Carrier:	Number of messages:
AT&T	627
Sprint	15
TMobile	53
Verizon	1,228
Misc	122

1 new user registered in February, on the day of the test. 82 new users registered since the test, mainly after an email from PR.



An analysis of one group of 500 subscribers indicates a small but growing problem with the quality of the data. It appears that, when a user experiences a change in cell service – a new number, a new provider, etc – the user creates a second [new] account in e2Campus, with the new information – rather than ‘logging in’ and changing the prior info. Thus, the user does receive an emergency message on their new device, and a message to the old device fails. The group that was analyzed contained 5% duplicates.

As we anticipate changing our protocol for e2Campus subscription, from opt-in to opt-out, we must consider best means to also clean up this information.

## **e2Campus E-Mail Messaging**

Subscribers to e2Campus can optionally choose to receive emergency alert messages via email (instead of, or in addition to, text messages). They simply submit the email address to which messages should be sent. During the 2/25 test, 445 email messages were sent by e2Campus. These emails travel through the public domain. 5 of these stored email addresses were invalid, or 1%. In the most recent test, all of the emails were delivered within 1 minute. Details follow:

445 email messages sent –  
5 failed – invalid address  
440 sent successfully to:

21 – AOL  
3 – Comcast  
37 - gmail  
9 – hotmail  
3 – MSN  
326 – Muhlenberg.edu  
4 – Verizon  
14 – yahoo  
23 – misc

Of these, 436 (99%) were routed to the appropriate email service within 1 minute. 4 messages, to PBGW-CPA.COM and PTD.NET, all encountered an 18 minute delay.

## **GroupWise Emergency Email**

Groupwise performed well in the test. Simple procedures for universal messaging have been developed that do not rely upon the accuracy of lists, etc... guaranteeing that all users will receive the emergency messages. Approximately 3,700 messages were sent within 1 minute.

## **Carillon**

Campus Safety personnel were dispersed to several locations to observe the volume of the campus siren. These individuals started at 26th and Liberty, 26th and Chew, 22nd and Liberty, Albright and Chew, and the Village area. During the 3-minutes of the siren sounding, they continued to observe as they traveled to Ott and Chew Street, Ott and Early Street, 23<sup>rd</sup> and Allen Street, Ott and Parkway Boulevard, and Turner Street. Reports indicated that the siren was clearly heard throughout their route. Additional (unsolicited) feedback was provided that the alarm could be heard inside some buildings. While the intention of the alarm is not to be heard inside buildings, individuals reported hearing the siren within properties on 22<sup>nd</sup> Street, 2238 Chew Street, and Ettinger basement.

## Message Board

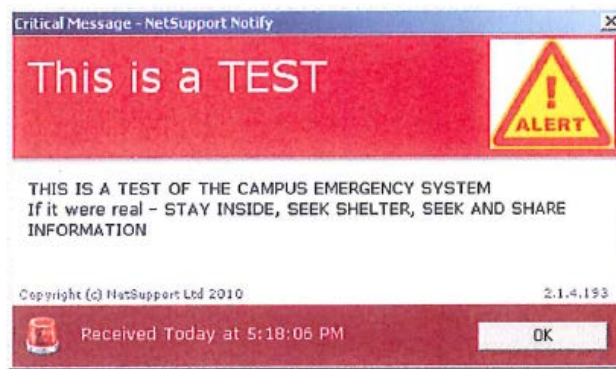
The CAMPUS ALERT on the Message Board performed without problem.

### Emergency Hotline extension 6000

This resource was not included in this test. This resource is routinely used as a weather advisory hotline and as an event advisory hotline.

### Campus Desktop Pop-up Emergency Notification

This product accepts emergency messages from designated secure clients (Public Relations, Campus Safety, with IT as a backup). The emergency message is displayed on a subscribed computer via a pop-up browser window, interrupting any other activity on the PC and requiring acknowledgement. The browser display is accompanied by a recording of the carillon alarm.



This tool is currently deployed to more than 600 campus PCs, mainly in offices and classroom techwall computers. For the purposes of this test, a message was sent to all PCs in Ettinger and Moyer. The message was confirmed as sent to 208 desktops in less than a minute. In the teaching spaces observed within Ettinger and Moyer, the message appeared on the projection screen if the techwall was powered and the PC was currently selected as the input device [relatively normal conditions during the class day].

The message capacity of this resource is the same as that of text-messaging. The intent is to cut-and-paste the message content from e2Campus to this application, initially – and to seek integration thru the vendors. This product will be expanded to all College-owned computers during the spring semester. Current licensing allows the option to offer this to students as a download for their personal computer.

Training on this product, and establishing emergency communication protocols at a building-level, should occur later this semester.

### Text Messages via e2Campus to classroom phones

For the purposes of this test, test messages were sent to all classrooms in Ettinger and Moyer. All 30 calls were completed within 1 minute.



Moyer 314	4846644101	Call Complete	2/25/2011 20:11
Moyer 309	4846644102	Call Complete	2/25/2011 20:11
Moyer 302	4846644103	Call Complete	2/25/2011 20:11
Moyer 301	4846644104	Call Complete	2/25/2011 20:11
Moyer 214	4846644105	Call Complete	2/25/2011 20:11
Moyer 209	4846644106	Call Complete	2/25/2011 20:11
Moyer 201	4846644107	Call Complete	2/25/2011 20:11
Moyer 109	4846644108	Call Complete	2/25/2011 20:11
Moyer 106	4846644109	Call Complete	2/25/2011 20:11
Moyer 104	4846644110	Call Complete	2/25/2011 20:11
Moyer 101	4846644111	Call Complete	2/25/2011 20:11
Moyer 026	4846644112	Call Complete	2/25/2011 20:11
Moyer 011	4846644114	Call Complete	2/25/2011 20:11
Moyer 009	4846644115	Call Complete	2/25/2011 20:11
Moyer 008	4846644117	Call Complete	2/25/2011 20:11
Moyer 006	4846644118	Call Complete	2/25/2011 20:11
Moyer Miller			
Forum	4846644119	Call Complete	2/25/2011 20:11
Ett 105	4846644201	Call Complete	2/25/2011 20:11
Ett 108	4846644203	Call Complete	2/25/2011 20:11
Ett 201	4846644205	Call Complete	2/25/2011 20:11
Ett 202	4846644206	Call Complete	2/25/2011 20:11
Ett 203	4846644207	Call Complete	2/25/2011 20:11
Ett 204	4846644209	Call Complete	2/25/2011 20:11
Ett 205	4846644222	Call Complete	2/25/2011 20:11
Ett 210	4846644223	Call Complete	2/25/2011 20:11
Ett 211	4846644224	Call Complete	2/25/2011 20:11
Ett 212	4846644225	Call Complete	2/25/2011 20:11
Ett 214	4846644227	Call Complete	2/25/2011 20:11
Ett 107	4846644249	Call Complete	2/25/2011 20:11
Ett 213	4846644254	Call Complete	2/25/2011 20:11

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End of analysis