

**Southern Association of College and University Business Officers  
2008 "BEST PRACTICES" Submission**

**Easy and Effective Improvements in Emergency and non-Emergency  
Communications**

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*Abstract*

*Communicating with students, faculty, and staff at the right time, with the right method, and for the right reason can benefit everyone.*

*The University of Tennessee Martin Business Office was experiencing difficulties reaching students concerning confirming their registration, so that their courses would not be dropped. They were actively searching for the right solution. Roger Elmore, Senior Telecommunications Specialist, developed an autodialing system to call the students with reminders. The Autodialer created time savings and improved confirmation rates. It is a success.*

*The Autodialing system capabilities spread quickly. Public Safety began using the system to make directed, timely calls to provide emergency notification to the right people when the Martin area is experiencing weather alerts. The procedures are in place to use the Autodialer for any type of emergency notification.*

*Lessons learned from the Virginia Tech tragedy say that TXT messaging is also a valuable method of communicating with the campus community. Through use of technology services currently available on the UT Martin campus, Information Technology Services and Public Safety have quickly implemented an inexpensive method of sending emergency TXT message notifications to students, faculty, and staff. Information Technology Services staff members - Terry Lewis, Andy Rivers, Bruce Harrison, Ken Blankenship, Brenda Wright, Larry Holder, Mark McAlpin, Roger Elmore, and Shannon Burgin held a brainstorming session to review the alternatives for workability, process, cost, time to implement, and impact, with a goal of quickly providing a method of sending emergency TXT messages.*

*Larry Holder, IT Administrator IV and Database Administrator, developed a program on the UT Martin student information system Banner Web which provides a simple opt-in webpage for UT Martin students, faculty, and staff to voluntarily provide their cell phone number, cell phone provider, and select a message level for TXT messages sent from University administration, primarily intended for emergency notifications distributed by the Department of Public Safety.*

*The program source code was freely offered to other schools that also use Banner for their student database. The software sharing offer received an overwhelming response from universities across the U.S. and Canada. Of these, Eastern Kentucky University recently reported successful testing of the feature, sending a TXT message to over 1,700 cell phone users on their campus.*

*The addition of TXT messaging to current methods of emergency notification, including the Autodialer, provided a valuable piece to our communication capabilities in an emergency situation.*

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**Introduction of the Organization**

Improved emergency and non-emergency communications have affected all areas of the University of Tennessee Martin. Students, faculty, and staff receive information about emergencies and confirmation of registration and fee payment. The Business Office is receiving a better response rate on confirmation and fee payment and saving resources that had been used to make manual calls. Public Safety appreciates the comfort of having multiple methods of contacting people in case of emergency and methods that are easy to use. The entire campus has benefited from the additional methods of communication.

**Statement (restatement) of the Problem/Initiative**

Communicating with students, faculty, and staff at the right time, with the right method, and for the right reason can benefit everyone. The in-house developed Autodialer and TXT messaging systems have met this need quickly and effectively for emergency and non-emergency communications.

**Design**

The Autodialer and the TXT messaging systems were both easy to do, inexpensive, quickly implemented, and effective. They are exactly the kind of projects that everyone likes to see. The benefit definitely outweighs the cost.

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Contrary to most systems that are implemented, both of these were developed to meet the specific needs of the Business Office and the Office of Public Safety and did not require many of the steps involved in the standard systems development cycle.

The Autodialer is a simple design. Some Internet research for components, set up, and training, and it was ready to go. The system utilizes a Windows XP machine, two 12 port Dialogic analog cards, 24 dial out lines connect to the PBX, and the Protocall Auto Dialing software. After all of the parts arrived, it was working in a couple of days.

Costs:

\$4,840 for the software and Dialogic cards

\$200 for a computer coming out of rotation

Additional long distance charges from increased number of calls

The design of the TXT messaging system focused on simplicity of programming and use. It required no additional resources, and was written and initially implemented in less than two days. The core of the programming involved producing email (via Oracle's UTL\_SMTP feature) that routed to the proper SMS domains associated with text messaging for the major cell phone carriers. A webpage is integrated into the Banner Student Information System web services to collect cellphone number, cell carrier, and level of notification. Another webpage integrated into the Banner web services allows authorized users to submit and send the TXT message to those who have opted-in to the service.

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**Implementation**

Implementation of the TXT messaging system involved adding the opt-in webpage to our existing student web interface, and announcing its presence via email and on the myUTMartin portal. An initial test message was sent out a few days later to confirm that the message was received in a timely manner by those who opted in. Incoming students are being encouraged by Public Safety during Skyhawk Central and First Year Initiative to sign up.

The implementation of the Autodialing system requires a few simple steps.

- 1) Supply a recording to be played when the call is made. The recording can be made using the Protocall Autodialing Software, or a pre-recorded .wav file can be imported into the system. Emergency messages were scripted and stored for use by Public Safety.
  
- 2) The appropriate list of numbers to call is generated. For confirmation of fees, a list is generated from the Banner Student Information System and imported. For emergency and safety messages, a list of building phone numbers was generated by Telephone Services using information from its cable log database.
  
- 3) The appropriate recording and the file containing the list of numbers to call, a date and time to start and stop are entered into the schedule file.

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The system is set up to allow Public Safety to use their telephone keypad to call the system, enter a security code and password, follow the voice prompts to select the desired emergency message and building phone number files, confirm, and begin the dialing process. Within this process, it also allows recording a new message if the ones already stored are not appropriate for the situation.

The Autodialer has already been used for weather related messages, as well as calling those who have not confirmed and paid their fees.

The Autodialing system provides reports to the requesting office detailing the calls that were answered and the calls that were not answered and why for further individual follow up if needed.

**Benefits**

Developing our own text messaging web interface using existing resources provided an important service without additional costs, to be used in conjunction with other forms of emergency communications. Its simple and intuitive design provides for ease of use and virtually no learning curve on the part of either those who opt-in or those who submit the

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emergency messages. It is integrated into a portion of the student information system that is already familiar to students, faculty, and staff.

In spring term 2007, the Business Office had very few (if any) complaints about the Autodialing program. Students were confirmed earlier, and fewer were administratively dropped for not confirming attendance. The Autodialer was able to make more attempts than the Business Office could have made manually and actually reached more students than they could have reached. Labor cost were reduced, more contacts were made.

What is difficult to capture with statistics is how much this benefited the staff in many areas. Because the students confirmed earlier, the workload was more evenly distributed. The Business Office had approximately 28 fewer hours in overtime. Additionally, the time not spent dialing numbers was dedicated to resolving student issues. Students' accounts that had made partial payments or had full financial aid and had not confirmed were selected and personally contacted, when possible. The time for this type of analysis was limited before the Autodialer. With 190 fewer students being purged in the first purge in Spring 2007 as compared with Spring 2006, the staff spent less time with unhappy students and more time resolving issues before the final drop for non-payment.

Reenrolling students who were dropped because they did not confirm created additional work for the Registrar's Office, Student Financial Assistance, the Business Office, and

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even the Academic Departments. By dropping less students for non-payment that needed to be reenrolled, these offices also were able to use time more effectively.

The Autodialer and TXT messaging improve communications and save time and effort providing better service to our students, faculty, and staff in emergency and non-emergency situations.

**Retrospective**

In retrospect, we would not change anything, except that we might have implemented both communications methods several years ago, if we had just thought about it.