

The 4D solution provided a better, less expensive way to accomplish the goals of the Security Department.

Dartmouth College

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The Dartmouth College Safety and Security Department has the following Mission Statement:

"The purpose of the Department of Safety and Security (DCSSD), which reports to the Dean of the College, is to protect life and property; to preserve the peace; to deter violations of college rules and regulations, as well as criminal acts; to identify and/or apprehend violators; to perform those support services related to the safety and welfare of the college community; and to maintain a sense of community security and confidence in the department."

This is a creed that the men and woman who work for the College Security Department are very proud of. So when the College decided to install an Enhanced 911(E-911) system to make their campus safer and decrease potential liabilities by providing faster response by police, fire and ambulance they were supportive. Unfortunately, the E-911 system had a flaw. When a 911 call was dispatched the call went directly to the state dispatch personnel who in turn phone the local emergency response team who then called Dartmouth's on-site Safety and Security Department. This left the closest trained emergency

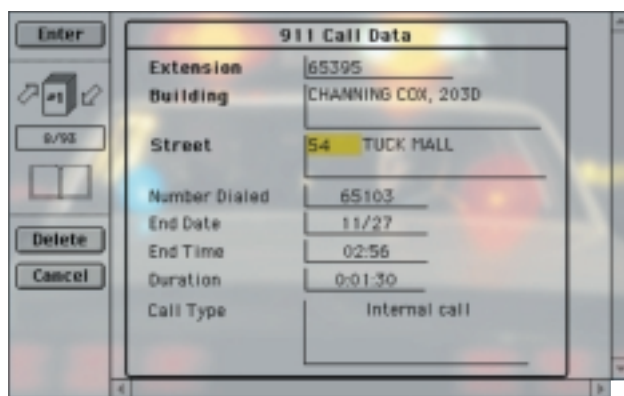
personnel the last to know that anything had happened.

The E-911 flaw was troubling to people at the College, especially those who worked in the Safety and Security Department and worked every day to fulfill the Mission Statement above. They wanted to be notified immediately if something was happening on their campus to one of their students, staff, faculty or guests so that they could respond to the scene quickly.

A COST-EFFECTIVE SOLUTION

Charlie Wilber, Dartmouth's Telephone Systems Manager, was placed in charge of finding a solution that would correct the oversight in the E-911 system but would not interfere with dispatches as they are sent out. Wilber began by researching the possibility of buying a pre-processed commercial system. He found that there were commercial systems that were designed to notify the College's Security Department when an emergency call was placed on campus but the price range was more than the budget could handle. Most of the systems that Wilber found ranged in price from \$25,000 up to \$50,000. "We thought there should be a better, less expensive way to accomplish the same thing," stated Wilber. So Wilber decided to create his own system and began looking at

4D's flexibility allows data to be analyzed and displayed to on-site security personnel.



In Focus

The 4D application allows the number from which the call came, the date and time, the duration of the call, the building name, room number, and street address of the phone to all be visible to security personnel.

The Dartmouth 4D system has an "effectiveness and suitability to its mission, and rivals the turn-key commercial systems that normally cost tens of thousands of dollars and require additional, ongoing maintenance."

what software was available. In addition, the commercial systems he looked at required a special phone line which Dartmouth's local carrier could not provide. By creating his own system using 4D, Wilber was able to bypass this problem.

4D CAPTURES INFORMATION

Wilber turned to 4D for the solution. He created a 4D application that could monitor the RS-232 output from the PBX and capture the data. This data stream is then parsed and input as a new record. From there the number of the calling party is cross-checked against a related file that contains a list of all on-campus phones and their physical addresses. The information is then displayed on a monitor to the on-site security staff.

The number from which the call came, the date and time of the call, the duration of the call and the building name, room number and street address of the phone placing the call are all visible. On-site emergency staff are then able to respond immediately to the exact location of the emergency without having to wait for the address information to be relayed through one or two dispatch offices.

"We knew that 4D's flexibility would allow us to capture SMDR (Station Message Detail Recording) information from our PBX through a serial port, then analyze the data

and display it to the on-site security personnel," states Wilber. He created the application so it can be maintained in-house and updated and modified as needed with no cost to the institution. Wilber feels Dartmouth's 4D system's "effectiveness and suitability to its mission, and rivals the turn-key commercial systems that normally cost tens of thousands of dollars and require additional ongoing maintenance charges."

THE FUTURE

Wilber admits that the on-site notification system was put together quickly and with as few resources as possible to solve an immediate problem. But it has proved to be more than a quick fix. 4D has provided an innovative solution which allowed the Safety and Security Department to create a quick answer to the immediate problem and implement it immediately. More importantly this system can now be developed more completely and expanded and upgraded as the College grows.

Future plans include moving the application to a faster Mac and making it a client/server application to permit multi-location notification of emergency calls. This will facilitate remote maintenance and updating of the data.

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