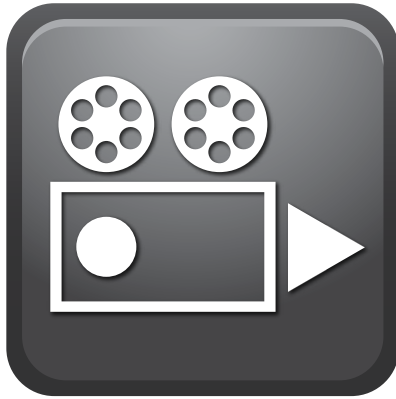


## CHAPTER 13 BUILDING INFORMATION SYSTEMS

### CASE 2 **IBM Helps the City of Madrid With Real-Time BPM Software**



**SUMMARY** After the terrorist attack in Madrid, Spain, in 2004, the City worked with IBM's business process management software to develop a single, coordinated emergency response center.

#### **IBM Helps City of Madrid With Real-Time BPM Software**

**URL** <http://www.youtube.com/watch?v=TrMTI2ELp9g; L=3:38>.

**CASE** The city of Madrid is the capital of Spain and its largest city, with a population of about 3.5 million people, and an additional 2 million in the surrounding metro areas. Madrid is the third largest city in Europe after London and Paris. As tens of thousands of train commuters made their way to work on March 11, 2004, terrorists exploded ten bombs on four trains headed into central Madrid. The devices were pre-positioned on the trains and placed in sports bags and backpacks. They consisted of 22 pounds of an explosive used in commercial mining known as Goma-2, and were detonated by the alarms of attached cell phones that were set to coincide with the times at which the trains would be in-station. One hundred ninety-one people lost their lives and 1,800 were wounded in the attack. This was the worst Islamist terrorist attack in European history.

The task confronting first responders was very challenging in terms of logistical, organizational, and emotional tolls. Emergency crews removed bodies from the scene as rapidly as possible, but there was no field triage or tracking system in place and this resulted in an influx of patients to area hospitals, with the least injured often arriving first. Some hospitals

were overwhelmed while others had additional unused capacity. Additionally, even though patients were stabilized on scene, on-scene responders did not have access to a cohesive distribution system to receive status updates on hospital availability. Fire and police did not know how many personnel to send to each site, and as a result, some sites had too many police, and other sites, not enough fire and medical personnel. Response appeared to be based on the nearness of personnel to the various sites.

Telecommunications systems were overloaded and largely unserviceable, causing information dispersion difficulties. During the first 16 hours, more than 22,000 incoming calls were processed by the Madrid Emergency Service Center in connection with the attacks. Police, fire, and other emergency response systems could not communicate well with one another, or with the Emergency Service Center, which was also overwhelmed and had no system in place to visually track responses.

#### VIDEO CASE QUESTIONS

1. List some of the factors that complicated the efforts of emergency crews (primarily fire, police, and medical personnel) in responding to the Madrid attack.
2. What was the problem with the existing communication system?
3. Describe the new system that was put in place after the attacks.
4. Describe the business process of the new emergency response center.
5. What is the response time goal and what progress has been made?

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