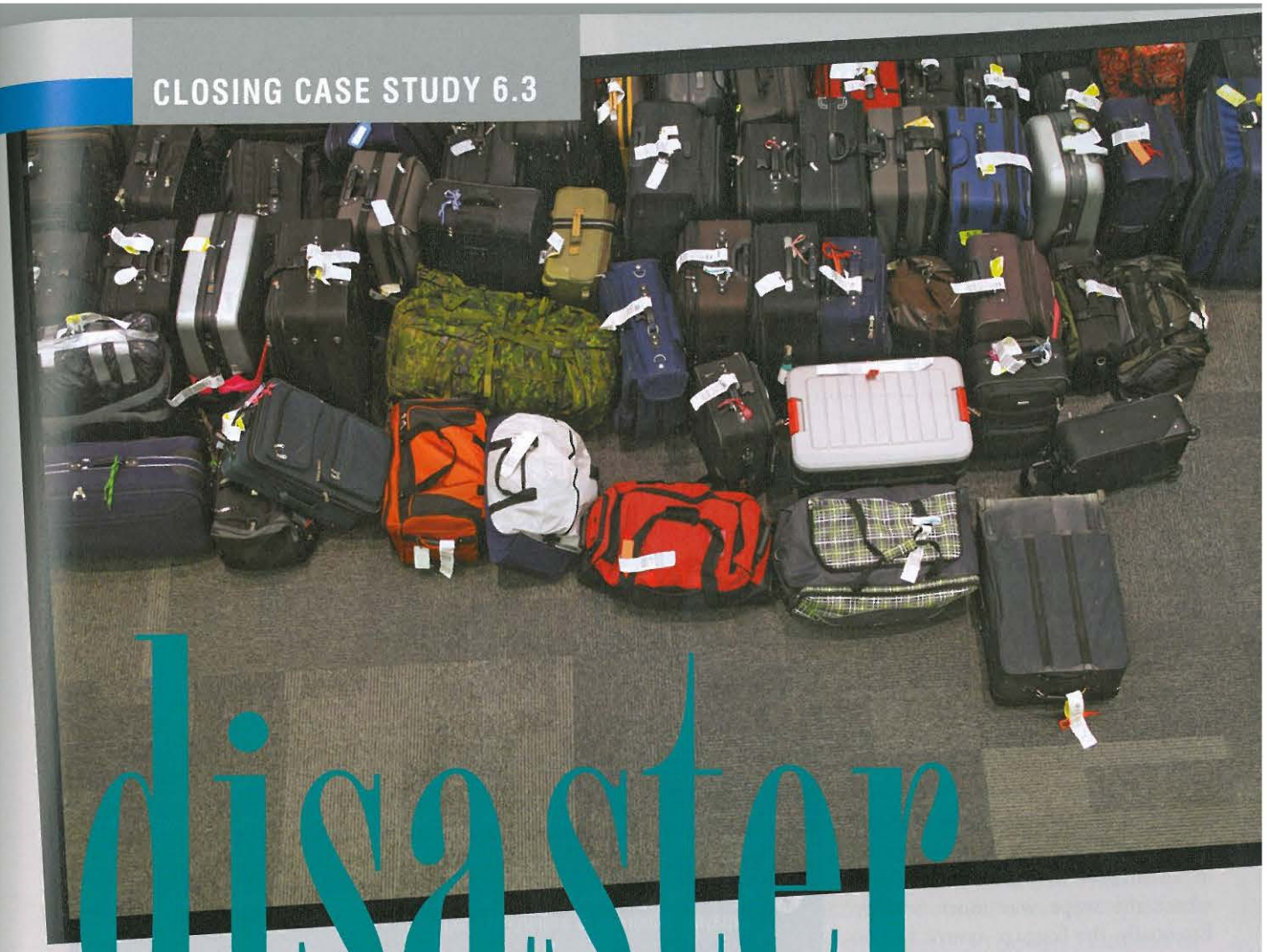

disaster

AT DENVER AIRPORT

One good way to learn how to develop successful systems is to review past failures. One of the most infamous system failures is the Denver International Airport's (DIA) baggage system. When the automated baggage system design for DIA was introduced, it was hailed as the saviour of modern airport design. The design relied on a network of 300 computers to route bags, and 4000 telecars to carry luggage across more than 33 km of track. Laser scanners were to read barcoded luggage tags, while advanced scanners would track the movement of toboggan-like baggage carts.

When DIA finally opened its doors for reporters to witness its revolutionary baggage handling system, the scene was rather unpleasant. Bags were chewed up, lost and misrouted, in what has since became a legendary systems nightmare.

One of the biggest mistakes made in the baggage handling system fiasco was that not enough time was allowed to develop the system properly. At the beginning of the project, DIA assumed it was the responsibility of individual airlines to find their own way of moving the baggage from the plane to the baggage claim area. The automated baggage system was not involved in the initial planning of the DIA project. By the time the developers of DIA decided to create an integrated baggage system, the time frame for designing and implementing such a complex and huge system was impossibly short.

Another common mistake that occurred during the project was that the airlines kept changing their business

The automated baggage system was not involved in the initial planning of the DIA project.

Essentially, the baggage system had an inadequate IT infrastructure since it was designed for a much smaller system.

requirements. This caused numerous issues, including the implementation of power supplies that were not properly updated for the revised system design, which in turn caused overloaded motors and mechanical failures. Besides the power supply design problem, the optical sensors did not read the barcodes correctly, causing issues with baggage routing.

Finally, BAE, the company that designed and implemented the automated baggage system for DIA, had never created a baggage system of this size before. BAE had created a similar system in an airport in Munich, Germany, where the scope was much smaller. Essentially, the baggage system had an inadequate IT infrastructure since it was designed for a much smaller system.

DIA simply could not open without a functional baggage system, so the city had no choice but to delay the opening date for over 16 months, costing taxpayers roughly US$1 million per day, which resulted in a loss of around US$500 million.[56]

Questions

1. One of the problems with DIA's baggage system was inadequate testing. Why is testing important to a project's success? Why do so many projects decide to skip testing?
2. Evaluate the different systems development methodologies. Which one would have most significantly increased the chances of the project's success?
3. How could more time spent in the analysis and design phase have saved taxpayers hundreds of millions of dollars?
4. Why could BAE not take an existing IT infrastructure and simply increase its scale and expect it to work?