

Londen Ambulance Service Software Failure Analysis

Ruben Janssen, 10252657

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The Londen Ambulance Service (LAS) is the largest ambulance service worldwide responding to over 2000 calls per day. Founded in 1930, the LAS was barely automated as most tasks were done manually on paper. This system was error prone to human failure and was also very slow. Therefore, it was necessary to be replaced and the Computerized Dispatch System (CAD) was created.

When the system went live, had several flaws; it did not function well when it was given incomplete data and the system did not accept errors that occurred in normal day-to-day use. On top of that information wasn't always shown and due to a memory leak the server crashed after a couple days. All these errors caused chaos and led ambulances to late arrival, or two ambulances turning up at the same time, or worse not at all.

Could this have been avoided? What went wrong during the development process? On the moment CAD went live, 81 bugs were known in the system which caused CAD to fail. Also it had been 10 months since the control room staff were first trained to use the software. On top of that was the system only partially tested. It seems obvious that these problems could have easily been avoided. The root of the problem appears to be why errors were not avoided, rather than what mistakes were made.

As the CAD system development was under strict time and financial constraints, not much time was used to review the product. There should have been greater negotiation and communication among the stakeholders regarding the time and financial requirements of the system. The tight time schedule coupled with continuous modifications of the system did not allow the system developers to carry out sufficient testing. The system would have benefited from an independent quality assurance team working on the system as they would have identified a number of key flaws.