



Ready for take-off?

Hugh Buckley at Quortex looks at the implications of businesses that fail to test systems and processes effectively before going to market

"Are businesses simply ticking boxes, or are they really focused on delivering robust solutions?", asks Hugh Buckley. "You only have to look at the recent problems with the opening of Heathrow's Terminal 5 to the general public to appreciate how easy it is for a seemingly straight forward process to end in complete chaos. Blame it on teething problems or unforeseen circumstances if you will, but the fact remains, had adequate and effective operational readiness testing been put in place prior to the grand opening, would Terminal 5 have experienced quite so many initial issues?"

It's a pertinent and timely question, as most of the major construction projects that are currently going on in this country are much more than just piles of concrete and steel. They are complex environments that combine a high degree of technology with huge amounts of human traffic, such as airports, football stadia and, of course, the 2012 Olympics.

The country suffered a good deal of humiliation over Terminal 5 - it is to be hoped that lessons will be learned, and the same problems will not be repeated when the Olympic torch is lit in London four years from now. (I am happy to report by the way that, according to fellow journalists from Europe I recently met at a London conference, the Terminal 5 experience is now everything it's developers said it would be).

Hugh Buckley takes up the story, explaining that all of the traumas could have been foreseen and eliminated with a proper regime of testing prior to opening the Terminal.

READY, STEADY - GO?

Most of the problems associated with testing generally arise from the mindset that is taken in defining the overall approach. It begs the question whether the testing is being conducted in order to tick boxes or to ensure that a business has a robust solution in place?

The real purpose of testing should be to ensure that the solution that's being



delivered (people, processes and systems) does exactly what is expected of it. That means understanding and managing the real risks and costs of problems being found after the solution goes live. In some 'mission critical' situations the true cost of getting this judgement wrong can be huge.

For many businesses, testing usually fails because it has either been defined with the wrong scope (for example, choosing to rule out of scope aspects that are hard to test) or because an unrealistic view is taken as to what the solution is going to have to contend with in real life. These narrow interpretations can mean that the real-life operational scenarios are not properly considered until it's too late.

The sad truth is that all problems and weaknesses inherent in a solution will ultimately come to light during its operational life. This is often out of your control and the cost of testing everything before 'going live' is likely to be uneconomic. So ultimately it comes down to a judgement call between the cost of more testing and the risk of suffering a failure once in operation. Businesses therefore have to decide what failures they cannot afford to discover after they go live, and what problems they might be willing or able to work around.

No matter how painful, it is always better in the long run to discover problems during testing rather than discover them in operation - finding defects is an achievement to be celebrated and not a failure to be scorned. Sadly, commercial imperatives such as payment milestones tied to passing testing stages can all too often drive the wrong attitudes and behaviours when it comes to testing.

Operational Readiness Testing (ORT) is

the 'sharp' end of testing. It's about ensuring that everything is ready for live operation - that people are properly trained, systems are ready and processes are in place. Not only must ORT focus be on 'sunny day' operations when everything goes to plan, but even more importantly, it has to ensure that likely failure scenarios have been accounted for.

Whilst most of the previous stages of testing may have taken a largely 'purest' view - testing against documented technical requirements of the system for example - at this stage a much broader approach is required where full operational scenarios need to be tested. This is after all, the final safety net before going live and all that this entails.

One of the final challenges is the inevitable pressure on timescales. Testing by its very nature comes towards the end of the project lifecycle and failures can delay the release of the solution. Often, pressures to meet fixed deadlines result in a desire to claim back previous slippage by compressing testing timescales. The key to managing this is to be in a position to articulate the risk to the business in reducing the amount of testing, and to ensure that those who ultimately carry that business risk understand fully what they are signing up to.

When looking at where to focus in the final stages of testing, it can be useful to consider two key areas. The first is performance testing and the second is failure mode testing. They are probably the hardest to get right since they involve the exploration of the operating boundaries of the solution in multiple dimensions (e.g. number of users combined with throughput).

Deciding where to focus performance and failure mode testing requires both a

sound understanding of the solution design (and therefore an understanding of where weaknesses might lie) as well as the real operational environment (the way in which the solution is most likely to be stressed in real life). Failure to incorporate both sides of this equation into the planning means businesses can be assured of encountering problems later down the line.

Good testing requires significant thought and planning, but can be hugely rewarding. At the very least it serves to build confidence in the robustness of the solution and could protect the reputation of a business not to mention save huge amounts of money long term.

WHO ARE QUORTEX?

Quortex are business change experts. They bring a refreshingly different approach to the more traditional management and IT consultancy space, and one that is becoming increasingly relevant to the large scale - complex public construction projects.

The company is privately owned and completely vendor independent, and helps companies face the constant challenge to deliver improved and sustainable business performance, where success depends on clarity of vision, astute planning and superb execution.

Quortex can provide expertise to drive business change ranging from small scale business process enhancements to setting up global transformation programmes. Its pragmatic approach and active transfer of knowledge to client teams is what sets it apart from the crowd. The company's difference is best summed up by one of its clients: "The difference with you guys is that you really care about what you do."

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