

THE NEED FOR SEPARATION

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It is hard to pick up a paper, listen to the radio or watch the news on TV without hearing about issues in the technology world. We have all heard of the software glitch that closed down a major department store's ability to approve credit cards, or another one that closed a major international airport for five hours. Every time I hear one of these stories, I wonder how the applications were tested and if the QA team reported through the development team or into another part of the organization.

Was the QA team placed in a position where they had their defects downgraded, deferred or ignored? Maybe there was subtle pressure applied to ignore "minor issues", test faster, or not test areas at all? As QA professionals we have all seen this happen.



To withstand these types of challenges the QA department should be an independent team with a strong voice when it comes to the release decision. To empower the decision making process it is good practice that the QA department has reporting lines parallel to the development team and that the QA management has the same power and influence as the Development management.

With the proper checks and balances in place, senior management will receive unfiltered, non-

politicised test data which will allow for an informed decision on the current quality of the software and when software is being evaluated for release.

The following case scenario highlights how these two models operate, and where I have seen issues occur in the past.

QA is Separated from Development

As the Director of SW Quality at a large established company, I reported to the Senior VP of Network Operations, with the Development teams reporting to the SVP of Development Engineering.

The Network Operations group was responsible for the day to day performance of a web site. The site included data intensive operations and constant monitoring was required.

With the Network Operations and QA teams working together, we started to design more accurate Performance and stress tests, added realistic test cases and quality metrics. In this alignment, there was good separation between QA and Development. The QA team had adequate autonomy that allowed QA/Test to have an independent voice for release decision. (See Figure 1).

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- **Share our knowledge and experience**
- **Invite comment and discussion**
- **Encourage good practices and joined up thinking across the community.**

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The Senior Vice President of Network Operations who hired me said what we needed were better QA processes and procedures, particularly around the area of task assignment, test duration and test progress reporting.

In meetings with Development, Product and Business teams these and other issues were revealed.

Development couldn't understand how the QA always took 6 weeks, no matter how big or small the release was. This was a huge point of contention.

There was a lack of trust when it came to scheduling and the integrity of the QA/Test cycle duration. The business was concerned that there was no way for them to have high-level visibility into how the QA effort was going.

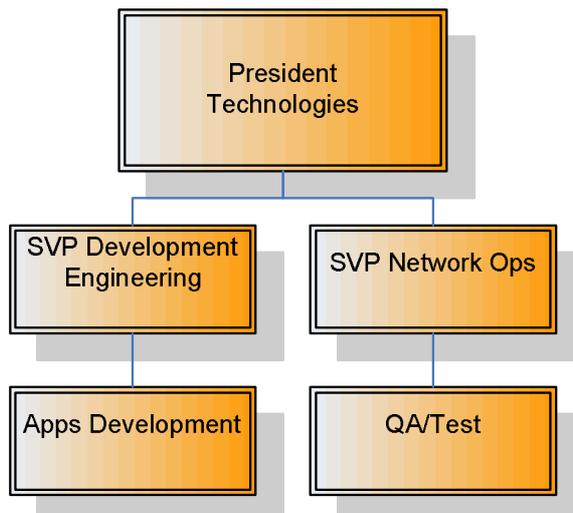


Figure 1—QA is Separated and Strong

Working with my peers in the project management office, the development organization and the business people, we started to apply basic SDLC processes.

This included requiring the business to deliver better Functional Requirement Documentation, having QA involved earlier in the process, and QA to produce realistic, well defined schedules. This was a big culture shock for the QA/Test and for the development teams.

We experienced a lot of pushback and opposition initially, but, the teams worked together, with QA having as much clout as the rest of the teams.

The result was very positive. The first project met the project release date and met the defined level of quality.

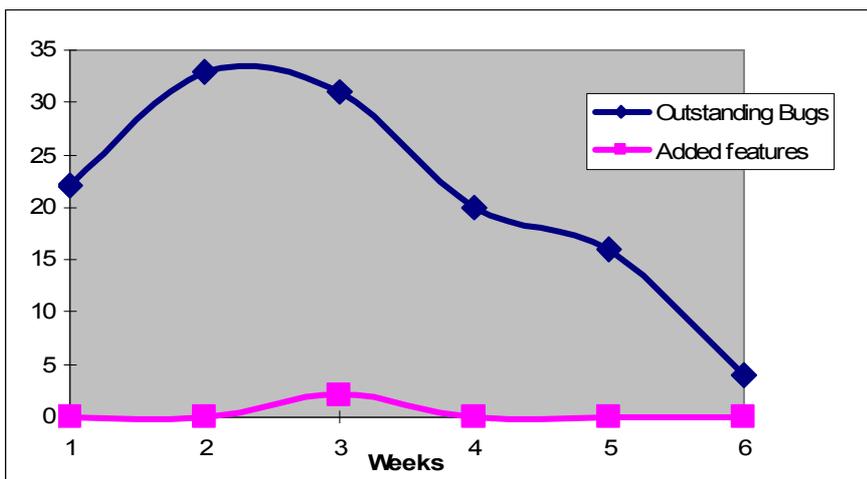


Figure 2—Defect Reduction/Time (April release)



People soon started getting on board with the new process. We used a logical quality matrix and saw a good reduction with time to fix and close defects (Figure 2). People were very happy. In fact, the deployment went out in 10 hours and over the following weeks there were very few hot fixes.

QA is brought back in

A decision was then made to have both Development and QA report into the same person, the CIO (see Figure 3).

This had an immediate effect on both the test efforts and development efforts. Development was overrun with code changes and feature creep; the business felt out of the loop, QA was told that they were to focus on planning the test cycle using only the current test cases, and not to develop any new ones. As much as I protested, I was overruled. The logic was that any new test cases would put the release at risk.

QA received the code two weeks late and as we executed our test cases, it was apparent that the code was not ready and that the schedule might slip.



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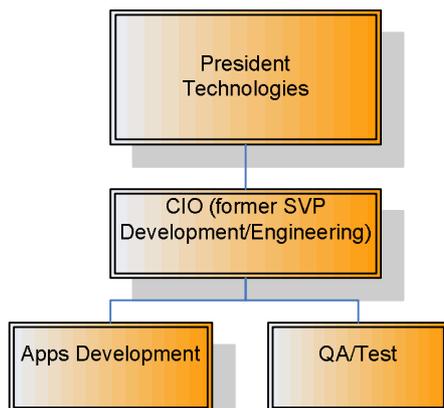


Figure 3—QA reports to CIO

We established a plan to try to make up the time lost due to poor quality code. It called for the QA Test Teams to work seven days a week, with assistance from business analysts and development. This went on for 10 days, with more evidence that the code was not ready. I, along with the development director, agreed that it would be best if the both of us went to the CIO to deliver the news.

A meeting was set up and we presented our news. To say it was not well received was an understatement, but, it was agreed to delay the release by 4 weeks. We left the meeting beaten but relieved that we would have extra time to fix the defects and test.

The team added test cases for the additional high risk areas while development pushed forward fixing the defects and finishing up the code. I set up a tracking matrix to more closely track the progress of test cases and monitor the bug velocity.

Although additional critical issues were discovered, we continued to press forward. Then the inevitable happened. In the bi-weekly staff meeting, the CIO put extreme pressure on the release. The release was now to be driven by the required date and

that any problems, no matter how severe, would not delay it.

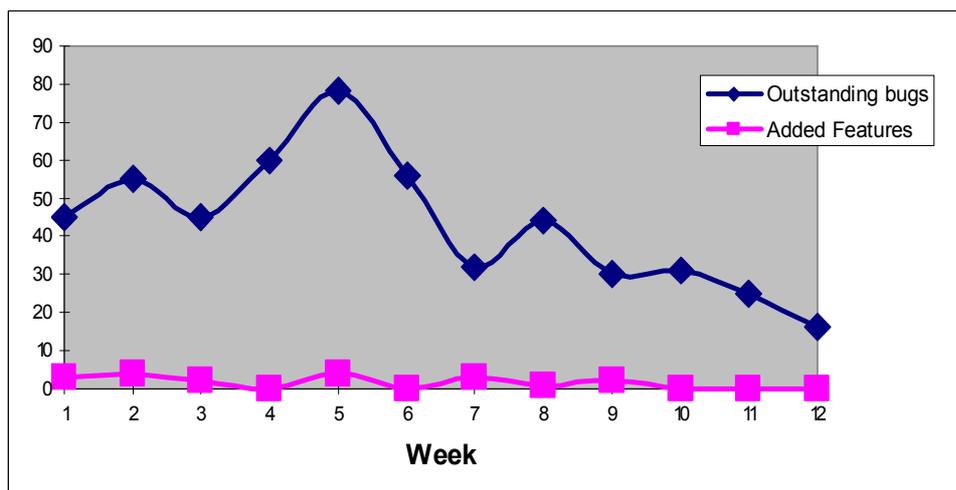


Figure 4—Defect Reduction/Time (July release)

As is highlighted in CMMi literature, the behavioural change was being focused on a need to meet performance objectives and bonuses—which weren't measured on quality.

The release went out on the date, taking 36 hours to deploy and with still four show stoppers and 15 critical bugs in the code.

For the next few weeks, the teams struggled to provide fixes and patches. Some of these

problems may still exist in live today.

QA Needs Separation

When there was separation of Development and QA, each team had an independent voice and equal power to prevent a release from deploying. I believe it is necessary that the QA team and development teams report into different organizations and that they function as peers.

In the beginning of this scenario, I stated that the QA teams initially reported into the Network Operations SVP who was a peer of the CIO. This gave them an equal and separate voice at the table. After this was changed, QA was neutered and pressure to release was intense.

In my view, the ideal situation is to have a totally independent QA organization which is charged with the entire test program. This means that the QA team must have a completely separate reporting structure, free from the pressures and influence of development and with the freedom to report the unvarnished facts necessary for decisions on whether a product is ready to go.



“enormous pressure exists to limit the amount of testing, control the information and release on the milestone date even if the product is not ready.”

The External Advantage

Within a software project enormous pressure exists to limit the amount of testing, control the information and release on the milestone date even if the product is not ready.

After being repeatedly burned by this approach more companies are looking to create strategic centres for QA, and use external companies to validate and modulate their work.

This approach gives the QA team the proper focus, insulation and of course separation.

The normal project pressures and issues will still occur, such as schedule, unforeseen delays during the process, but, ultimately, because the QA team is more independent—and sometimes even external—they are more resilient to the politics that can so often defeat their efforts.

Author Biography

Donald St. Pierre is one of the founding Test Managers of TCL USA, the US arm of Transition Consulting Limited. He has more than 25 years experience in Test and Quality Assurance of complex software, web based applications, and hardware systems.

Having worked within many different software development frameworks and fully demonstrating his ability to deliver multiple projects on time and to budget, Don has joined TCL USA with the vision of helping to lead software testing through its next cycle of evolution.

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“Our core purpose is to Deliver World Class Solutions in Software Testing that are Innovative, Structured and Professional ”

About TCL

Transition Consulting Limited (TCL) is a specialist consultancy in software testing. As a consultancy, our core purpose is to Deliver World Class Solutions in Software Testing that are Innovative, Structured and Professional – we are geared to deliver in all areas of software testing, from Unit Testing to Performance Testing, and everything in between.

Our competencies are best displayed in shaping test activities to the benefit of our clients, and assuring that the products are successfully implemented - not just tested. Our experience, and delivery process, has been repeatedly proven and reinforced in many challenging environments.

We provide strategic consultancy to organisations looking to establish mature practice and to measure the effectiveness of the testing approaches they are using. Through the provision of training services we are also able to share the knowledge and experience we have gained and provide support in the implementation of these concepts at our clients. Our solutions include:

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- Healthchecks and Test Assessment
- Security Testing
- Automated and performance testing
- Offshore test analysis and engineering.

Through a network of specialist partners we are able to provide a comprehensive testing solution for clients of any size.

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