



Cloud QA Quality Framework White Paper

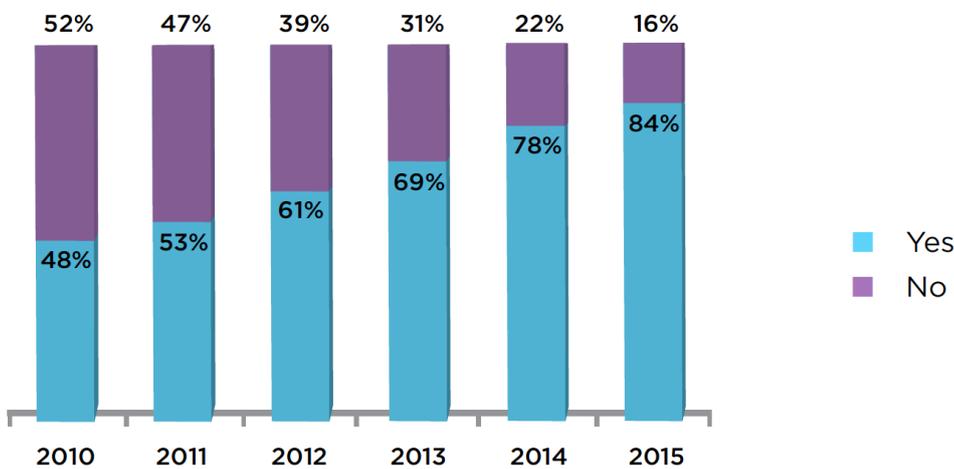


Are you heading for a Cloud thunderstorm? Having a QA and testing framework while selecting and implementing a cloud service can help you avoid a lightning strike

The traditional role of a CIO, the company’s steward of all things technical, is shifting as the business part of the organisation becomes more tech savvy and more demanding. Business is taking control by engaging directly with vendors who are offering on-demand services and promising more value at less cost and more quickly than the internal IT department. As a consequence business is effectively bypassing their IT colleagues in a growing trend known as ‘Shadow IT’. Why engage the internal IT department to define a solution on your behalf when there are ready made Cloud based solutions that can satisfy your needs?

As the market adoption of cloud services and the digitalisation of business data has accelerated, quality assurance and testing, which was once the clear responsibility of the IT department, has now become side lined as the business engages directly with cloud suppliers. With decision making comes responsibility and as a consequence the business has unwittingly inherited the ownership of quality assurance. How do we inform the Business that they are now accountable for the success and quality of the implementation?

Does your company have any hosted or Cloud-based services in use today?



Source: Cloud Industry Forum White Paper 15, Cloud Adoption & Trends for 2016

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Does the Business have the necessary skills and training to undertake this new responsibility as the Business Quality Manager? Do they understand all the Business and IT ramifications of a cloud implementation, e.g. compliance to industry regulations, certifications, data security, etc.?

Clearly, there is a need to support the business to ensure that the quality assurance activities are being fulfilled to validate that the service performs both functionality and technically. Let's not forget that if we remove all the surrounding fluff off the cloud there is ultimately still a piece of hardware in some data centre running some software that provides useful features. The functionality of this software still needs to perform as specified under various business conditions. The function operation of the service is obviously the responsibility of the Cloud service provider. However, there is an additional need to verify that the cloud solution technically and operationally fits within their business enterprise architecture.

This raises a number of key operational questions:

- **How does the various vendor SLA agreements across the enterprise align?**

Does the service fall to the lowest SLA common denominator in terms of availability, resilience or performance? Business needs to look at their entire integrated business solution and define the overarching SLA and the minimums that must be met by the vendors.

- **Who owns the integration components between the systems?**

How are these integration components (be they be a simple data file or calls to an API) maintained, monitored and validated with respect to future software releases and upgrades? These components will also need to have a supporting testing framework.

- **What is the process to swap out and change cloud vendors?**

How do you validate an exit strategy from a cloud provider - ensuring that your business data can be retrieved in a structured and controlled format? Before engaging with a cloud provider it is prudent to discuss and plan for a potential divorce. This is very much like setting the rules within a pre-nuptial agreement. This exit process needs to be validated independently and frequently. This is not a one off exercise.

- **How is your data protected?**

Data security requires verification at multiple levels, from ensuring the user access controls to view, maintain and update data through to data backup and recovery? How is the data encrypted when in flight between systems? How is the cloud service protecting malicious attempts to access data in the cloud?

A light weight quality framework is required to help the business make informed decisions in the selection, installation and ongoing maintenance of cloud services.

There are 5 stages to the QA approach:

- 1. Know your current AS IS operation**
 - Baseline current business processes
 - Baseline current operational procedures and SLA targets
 - Baseline supported industry regulations
- 2. Identify your TO BE operation incorporating the cloud service**
 - Identify new or amended business processes
 - Identify new or amended operational procedures and SLA targets
 - Identify additional local/global regulations as a consequence of the cloud adoption
- 3. Identify a set of prioritised acceptance criteria**
 - Identify critical or high volume business processes
 - Identify minimum SLAs that are critical to the operation
- 4. Discuss and agree entry and exit criteria with cloud provider**
 - Cloud provider to confirm adherence to the acceptance criteria
 - Agree acceptance testing responsibilities and plan with the Cloud provider
- 5. Conduct the acceptance testing with the Cloud provider**

Cloud technology and cloud service suppliers represent tremendous opportunities for organisations to exploit. With opportunity comes responsibility and so business must not shy away from adopting appropriate strategies to ensure that quality adds to the bottom line and does not subtract from it.