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Work Package:
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Questionnaire on Testing The Cloud

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Executive Summary

This deliverable corresponds to a questionnaire written in collaboration between UCD post-doctoral researchers (Anthony Ventresque and Christina Thorpe) and IBM Dublin.

1 Testing Major application updates/New Releases/Minor application updates/Production updates patches

- Where do you test Major releases?
- Where do you test minor releases and fixes?
- Where do you test OS, Security and Software updates?
- Do you have separate test environments for each?
- Do you release alpha/beta code and if so to what users?
- Do you test in production?
- How do you promote updates to production?
- Do you test at all stages of the Release?
- Do you release all new code simultaneously to all production environments or on a staged basis?

2 Test Infrastructure

- Are your test environments equivalent to production?
- Do they match in terms of scale?
- Are your test environments sharing production infrastructure?
- Do you use your test environments to validate capacity and validate capability to maintain projected growth?
- Do you use production environments for capacity management and growth?
- Do you use virtualisation to manage capacity and infrastructures?
- Do you maintain, manage and administrate your test environments with the same processes for production?
- How do you validate integration of your solution with external controlled components, such as ISVs or other web services operated by other organisations?

3 Test Tooling

- Do you use automation for running test cases?
- If so, at what level is it integrated, end user/server side etc.?
- Do you use similar test tooling across all environments?
- Are the same test assets used throughout?
- How do you control test assets and report on test execution?
- Do you use automated system analysis or profiling tools?

4 Testing types

- What type of testing do you run on your applications?
- Do you run compatibility tests?
- Do you run performance/reliability/scale/stress tests on production environments?
- Do you execute Continuous Availability/High Availability/Disaster Recovery Types tests?
- Do you execute security/ethical hacking testing?

5 Test Data

- How do you manage your test data populations?
- Do you base test population on production datasets?
- Do you use production usage and monitoring to refine test data?
- If testing in production environments do you have large test data populations in those environments?

6 Testing Customer Usage

- Do you test with customer scenarios in mind?
- Do you test for multiple browsers/mobile devices etc?
- Do you test your solutions with customer side configurations - customer side proxies etc.?
- Do you emulate network conditions?
- Do you test from different geographic locations?
- Do you test in multiple languages?

7 Test Monitoring

- How do you monitor your tests?
- Do you monitor actively in production for refined test execution?
- Do you use system monitors to validate application availability?

8 Testing Customer issues

- How do you track customer issue resolution?
- Do you carry out issue analysis in production environments?
- Do you attempt to recreate customer issues in production environments?
- Do you recreate those issues in non-production environments?