**Draft Piazza Testing Plan**

**Scope:**

This test plan covers API and Integration testing of Piazza Micro services deployed in the unclassified testing environment of the CACI/BITs cloud. Piazza software testing engineers are embedded with developers in an agile development process. This is a plan to recursively test Piazza micro service functionality while adding tests for emerging functionality to meet fluid customer requirements.

**Methodology:**

Both developer and testing engineers conduct software tests. Unit test are conducted in the development environment by individual developers prior to deployment in the testing environment. The testing environment is held stable throughout the duration of a sprint, and is separate from the development environment which is also deployed in the CACI/Bits cloud. The developer uploads the unit tests (postman tests) into <https://github.com/venicegeo/pztest-integration> at the end of the sprint. Testing engineers use the unit test to start building API and integration tests including boundary cases and exploratory testing on an individual API. The test engineer’s Postman collections are kept in <https://github.com/venicegeo/pztest-integration/tree/master/ci>. These collections are run automatically in the testing environment for periodic (TBD) recursive testing.

In addition to the automated testing, manual exploratory testing based on user stories in on going in the testing environment. Bugs or Issues are recorded in RedMine for discussion with the Piazza team.

**Testing Infrastructure:**

Testing engineers use swagger and developer postman unit test to build API and Integration Postman Collections. This requires Postman app, Newman shell running in CACI/Bits cloud, and GitHub for a testing repository. Testing also requires an environment that is stable throughout the duration of a sprint and separate from the developing environment.

**Criteria for Pass/Fail:**

All Piazza micro services must demonstrate functionality consistent with the acceptance criteria included in the RedMine User Stories agreed to by the Piazza team. Acceptance criteria are subject to change as customer requirements are adjusted.