TEST REPORT

Reflecting on the planning and tests conducted, the plan was created according to the strategy. The strategy was established based on the requirements by all stakeholders and under most consideration taken the requirements defined by the stakeholders “SDC” and the testing team. Into consideration was also taken the resources and knowledge as well as the software and hardware provided.

The test plan was created based heavily on the strategy. Many things were taken into consideration when choosing the right approaches and level and methods of testing. The schedule was to big extent followed and the project was finished in appropriate manner and time frame.

The test cases in this iteration were in the branch of security testing, configuration testing, manual and automated testing. The test team began with exploratory test to get a better understanding of how the system is operating and what are its capabilities. Once the exploratory test finished the team started with the manual test cases.

The manual test cases answered the expectations of the testing team with minor setbacks such as the program not implementing logs. Other mistakes were related to some of the dialogs from the command prompt not showing a specific error message or not showing proper message. The manual testing phase evaluated the software as satisfactory to be used for data transfer into the IOT branch.

After the manual phase there were an evaluation of the included supplementary automated cases. The automated tests cover almost the full code and tested a variety of requirements defined by the stakeholders thus leading to conclusion that the system is useful, and the tests are meaningful to large extent.

The configuration test followed which gave an idea of how the system behaves when being deployed to operating systems different from the typical personal computer ones. To get a better understanding and closer look the system was deployed to multiple operating systems mimicking the behavior of microcontrollers and IOT devices in general. The test held was the manual test cases as base but conducted on different operating systems of various devices. The tests showed that the system is useful and with some further implementation it can prove to be easily deployable by the IOT developers and end-customers.

On the other hand, the security testing was rather small and touched only the most basic cases that are present to today’s vulnerabilities and exploits. The server is having basic line of checking which command is being executed and what requests are made to the server which gives a base defense against amateur attackers with malicious intent. Furthermore, this is a basic code with not many functions to be exploited but still a hosted web service, thus security is important.

PROPOSITION FOR NEXT ITERATION

For next iteration the development team can implement the log to supplement the program and answer to the requirements by the end-user stakeholders and the SDC.

After implementing this new function, the test team can repeat the appropriate tests and write new ones in case of necessity. In general, after implementing a new way the server is working the test cases should be repeated in every aspect of the testing process.

In terms of security the next iteration can focus more on escalating privileges from the server to the host machine as well as executing a DoS and Slow Loris attacks to determine how the server will handle these threats. These are rather vital aspects especially for IOT devices and their security must not be underestimated.

When the development continues the configuration tests in this iteration should be taken into consideration. The server should be more responsible to different operating systems and should be easily deployable. In future cases it should be working even with some android devices. The developers can consider writing the code in such way that the system is easily adaptable to new devices especially related to the IOT.