**Internship report**

# Automated tests for the VGoip product


Submitted by

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# 1 Presentation of the company

CS GROUP is a leading global provider of innovative technology solutions and services in the field of information and communication systems.

## 1.1 Company Overview

Established in 1994, CS GROUP has grown to become a multinational company with a strong presence in several countries around the world. CS GROUP specializes in delivering end-to-end solutions that encompass consulting, system integration, software development, and managed services.

## 1.2 Clients

CS GROUP serves a diverse client base that includes prominent organizations and institutions across various sectors. This includes defense agencies, security organizations, aerospace companies, space agencies, transportation systems, energy sector, and utilities.

# 2 Before the internship

Before the internship I did not do anything special. I already knew my internship supervisor since I did an internship in another department of that company last year. I just said to myself that I was going to work as I usually do on personal projects.

# 3 Company expectations

The tasks planned for my internship were quite generalist since it involved writing automatic tests using an "in-house" tool. The automatic tests will be set up on equipment allowing voice and signaling to be converted from analogue to digital and vice versa using RTP (Real Time Protocol) and SIP (Session Initiation Protocol) protocols.

# 4 Tasks

The tasks foreseen for the internships are diverse and varied but they are all necessary for the realization of the internship subject from near or far.

First of all I have to take care of the installation of the project which consists in compiling the code, installing the architecture of the project on the system and starting the necessary services.

In a second step I have to write two scripts to export and import project data. The export script should perform a backup of the database and all the test scripts generated, in an archive .tar.gz format. The import script should read the archive and restore the database and all the test scripts.

Subsequently I have to modify the application so that it generates test files in python language instead of Shell script. Consequently I have to convert the Shell utility function files into python language.

I also have to create a configuration file generator for the machine on which I have to do the tests in order to generate unique configurations for each test.

Finally I have to complete the self-generated test files as well as the tests on the target machine with the right values and then optimize the tests and the software that generates them.

# 5 Conclusion

At present, I would say that I have completed 70% of planned tasks. I will soon have fully automated and self-generated tests ready. The biggest difficulty I had was adapting to the already existing semi-functional application which was very complex. To conclude I thought I had to propose a technical solution from scratch for the internship subject. But at the end, I found it quite interesting to adapt and enhance an already existing architecture. The team I'm working with is very friendly and always in a good mood, which is very pleasant and makes you happy to work on a daily basis with such people.