**Change requests analysis**

**Introduction.**

This document describes the analysis of three change requests (CRs) analysis conducted for the Communi-KT system, as proposed by our customer. Those change requests are the following:

**CR1:** User percentage time seeing advertisements.

**CR2**: The type of content of the advertising attracting the attention of the social media user.

**CR3**: Purchases made through the platform according to female and male products, age, and sexual orientation.

**Configuration context.**

Configuration Context is a concept to make the configuration layer more flexible. It makes possible to develop and provide different configuration versions on the same application object.

It refers to the set of conditions, settings, or parameters that determine how a software application behaves or operates in a specific environment. It encompasses various aspects of configuration that affect the software’s behavior, such as:

1. Environment variables.
2. Configuration files.
3. Database configurations.
4. User preferences.

Within this project there are needed several modules and conditions to get it working at a satisfactory level. Most of them regarding in the advertising and affecting the user’s data analysis, especially on the behavior and interaction while in the app.

**Finding the configuration items.**

A configuration item (CI) is any service component, infrastructure element, or other item that needs to be managed in order to ensure the successful delivery of services. This is a fundamental building block or element within a system’s configuration.

CI’s are discrete entities that can be identified, tracked, and managed throughout their lifecycle to ensure that they are properly configured, controlled, and maintained. The term “Configuration Item” can apply to various types of assets, components, or artifacts, depending on the specific context. Some examples are:

1. Software components.
2. Hardware components.
3. Documentation.
4. Network configurations.

In this analysis we consider two main parts for our communication system: Frontend and Backend. Which are important and not particularly the only one, but, in essence, the ones that defines the system itself.

* Frontend
  + GUI’s design.
  + Multiplatform support for multiple devices: Web, iOS and Android.
  + 2D and 3D realms (user can choose whether to access to trivial interface or access to their own world).
  + Testing.
* Backend
  + Database for storage all the information, in the essence of the DB Management software as well as the design.
  + Encryption of the user’s information
  + Data analysis of user’s behavior.
  + 3rd party integration for e-shops, healthcare, and services.

For assessing the impact of the Change Requirement on a given module, we consider the following criteria:

1. Functionality: To evaluate if implementing CR would require adding, remove or modify the existing functionality of a module.
2. Data: To assess if the type of data that the module receives, outputs or processes is compatible with the needs of the CR.
3. Performance: To estimate if the predefined computational resources of the system will suffice the CR’s computational intensity.
4. Dependencies: To check if the module depend on other modules or components that may be affected by the CR.
5. Documentation: To verify if the request needs modifications to the existing documentation or the addition of new documentation to reflect the changes made to the module.

**Analysis CR1.**

“User percentage time of advertising seen”

*Implications*: This regards on the importance of advertising for this platform. We’re selling a platform that will get people to purchase the products they want and need, therefore, the publicity the are shown must match their likes and interests.

Thus, the fact of knowing how much time the user expends on advertising will help us know in what they like the most and, more importantly, learn what type of adds they are more likely to watch and, eventually, purchase a product or a service.

*Modules affected*:

* Data collection.
* Data analysis.
* Advertising features. New module.
* Support for 3rd party plugins.

*Changes to be made*:

* Time management.
* Human resources.
* Technologies to be implemented.

**Analysis CR2.**

“The type of content of the advertising attracting the attention of the social media user”

This one goes by hand with the previous one in the sense that we’re monitoring what the user is more likely to watch and expend time on the add.

**Analysis CR3.**

“Purchases made through the platform according to female and male products, age, and sexual orientation”

*Implications*: This one also lies on the user’s data but, more importantly, on the collection of the user’s behavior on the platform and the interaction with 3rd party’s services (plugins) and regular advertising.

Helping sellers to know what the users are looking for, the way they expected the experience to be and how much people are more likely to make a new purchase. All according on the context of the client: age, sex, sexual orientation, ethnic, location, and so on.

*Changes to be made*:

* Time management.
* Human resources.
* Technologies to be implemented.