**Advanced Speed Test Application Requirements**

# Application context

The advanced speed test application (from now on – ASTA) is a client application that allows the user to test the network connection with advanced options / parameters and retrieve results for later analysis.   
This application is aimed to an experienced users with knowledge on communication protocols.  
It will be able to supply special information about the connection and data traffic that is being transferred between the application and the chosen server.PreResulSpe

# Requirements and description:

* 1. **Environmental requirements:**
     1. The application will be developed for Android operation system.
     2. Minimum supported android version will be Android 4.4
  2. **Functional requirements:**
     1. FTP protocol tester with the following capabilities:
        1. FTP server upload ability.
        2. FTP server download ability.
        3. Allows different configurations to be defined by user:
* Mode (download, upload, both - together)
* Limitation for task (Time, size)
* buffer-Size
* iterations
* visual preferences
  + 1. UDP / TCP protocol tester with the following capabilities:
* Mode (download, upload, both - together)
* Limitation for task (Time, size)
* buffer-Size
* iterations
* visual preferences
  + 1. Manage preferred servers screen:
* User will be able to manage his favorite servers
* Add a new servers
* Delete servers
  + 1. **Concurrency:**
* The application will use threads and processes if necessary, minimum load will be on the main thread.  
    
    
  1. **User interface requirements:**
     1. Simple user interface to operate and navigate.
     2. Visual graph of measurements: an online diagram that shows the current download and upload rate when user decide to run some traffic test.
     3. The user will be able to review the last test results in the application.
  2. **Results and reporting requirements:**
     1. The application will create a result file for each test that is being ran.
     2. The result file, will be save in device storage.
     3. The user will be able to distinguish between the test results – every test will have a different folder name that will be defined by the user while creating the test.
  3. **Stability:**
     1. The application will handle most of the errors while running (won’t crash) for any reason.