- Problem Statement*

We noticed that, commuters that use underground transport vehicles such as metro everyday, are deprived of the internet connection, therefore they are unable to use their mobile devices efficiently becase of the lack of internet connection. So, main problems are boring metro travel and necessity of socializing.

- Project Objective*

The solution that we provide is to create a local offline network inside the metro based on server-client architecture and a mobile application integrated with that local network. The mobile application is planned to consist various services such as offline messaging, games, competitions, news, statition information.

- Scope and Limitations*

Scope of our project is limited to provide a local offline social network. We will install server hardware to stations, wagons and we will implement mobile application for clients. Internet connection is out of our scope because of security concerns. Also, there will be no direct connection between clients, but server will provide communication between clients.

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- **Background-**

 In Istanbul, metro was preferred three hundred eighty four million times in the last year. This number has increased seventy five million compared to previous year. So many people waste their time in the metro while traveling. Of course there are some people who read book or play offline games, but most of them suffer from losing the use of mobile devices. Therefore, this project offers a solution for this problem.

- **Methods-**

Technological infrastructure of the project is based on hardware and software components.

In the hardware side, methods that enable to achieve our project's goals are related to wireless communication technology such that eight ought two dot eleven protocol. This protocol contains some sub standarts such as wifi and bluetooth standarts. We will place wireless communication devices to each wagon, in order to implement server-client network topology. This device represents server and mobile application in users represents clients. Software side consists server side software and client side mobile application with necessary services.
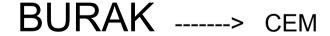
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- Services#

The mobile application include services such as messaging, news, competitions and station information. Number of these services can be increased or they can be improved according to user feedback. Chat service is limited to created local offline network area. Purpose of the chat service is creating a social environment. News service provides current news which are unreachable in the metro. In competitions service, multiple choice questions are asked and users should reply these questions in the given time. Station information service gives some info about nearby cultural-social activities and shopping malls.

- Difference of the Project#

In the market, current applications only supplies these services one by one. On the other hand, our application will provide these services entirely. For example Firechat application in the market offers only offline messaging via bluetooth mesh networks. In contrast to other news applications, our news service is able to deliver current news without internet connection.

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- Revenue Model*

We plan to gain profit by advertisement income, user statistics and surveys. There are two types of customers for our revenue model. Personal customers who use the application and enterprise customers who place advertisements or surveys, to our application. Personal customers will be charged for only extra features. We expect five hundred liras per week from these extra features. Enterprise customers will be charged based on time periods of their advertisements and number of answered questions in their surveys. For weekly advertisements, we estimate three thousand liras regular income. Also we will charge zero point one lira for each question answered by users. Assuming total number of answered questions are two thousand per day, we estimate one thousand four hundred liras income weekly from there.

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- **Potential Contribution-**

In potential contribution, what two types of customers expect and what creators expect from project are explained on this figure. We expect gain money from advertisement and competition and survey. Then customer gains can be listed as socialness, advertisement entertainment, reaching informations and current news.

- **Success Criteria-**

Success criteria consist of move into profit, reaching suffiicient user number and revenue from advertisement. We estimate no profit from next month because expenses will be higher than incomes. But, after the platform is established, we will not be spending any money for infrastructure, therefore we will profit.

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- Estimated Cost#

    Hardware required for the project is included in fixed costs, alongside development expenses. Costs for hardware requirements are expected as sixty dolars for each wagon and twenty five thousand dolars as total. It is expected twenty thousand dolars for software project, four thousand dollars per year for hardware maintenance. To add new services to the software, thousand dolar cost is estimated.

- Other Funding Sources#

    We applied several entrepreneurship competitions for funding of the project. Additionaly, we can consult to angel investors.

- Deliverables/Schedule#

    We expect
    two weeks for technical inspection time,
    three weeks for supplying communication hardware,
    one month for installation of hardware,
    4 mounts for mobile application and network software develop,
    six weeks for system integration tests.

After all, we expect about eighth months to complete the project.