**1. Introduction**  
Usually a social network stores the personal data and the messages of its members on its own servers. The members use Web browser as the client program and HTTP protocol as the media to connect to the social network and effectively to other members. From one side this minimizes the requirements to the member's environment - only Web browser and Internet connection are necessary, everything else is provided by the social network itself; from the other side this enables the provider of the social network with the access to the personal data of all its members and to their messages and also he can apply restrictive policies to the members.  
  
The main idea behind the Distributed Social Network (DSN) - independence of its members of any particular provider. Beyond the client program which provides such usual functionality as sending and receiving messages to the groups of the members there is a personal data storage on the client side of each member; this storage is for the service data (e.g. list of groups and group members) and the information messages received from other members. This means that the data is duplicated but at the same time nobody has access to the data in a centralized way and nobody can restrict the usage of the data by any particular user as soon as the user has already got access to that data.  
  
  
**2. Short Description**  
The media used by DSN is email. This implies that the member must have a valid email address and the client program must be able to send and receive the email messages.  
  
In the current version of DSN the personal data storage is implemented using IMAP folders on an email server; the possible options are Gmail and Yahoo; actually the member needs to have an email account on the email server which supports IMAP protocol; it can be the same server where is the member's email address. This means that if the member has the email address member@gmail.com it can be used both to access DSN and as the personal storage. But it is possible also to have the email address member@hotmail.com (Hotmail does not support IMAP protocol) and member@yahoo.com for the personal storage.  
  
Initially a person has to install the client application on his/her device and to set the configuration parameters which define the email address and the details of the personal storage.

All messages (service and information) are in JSON format specific to DSN. The client application looks into the INPUT folder on the email server for the messages in this format and reads them. Service messages are processed according their exact types, information messages are displayed to the member of DSN.

The types of the service messages can be:

- group invitation

- group membership request

- group membership response

- group membership notification  
. . .

The information messages can be sent to a single group, to several groups, to several separate members.  
  
There are 3 ways to become a member of a group:  
  
1) to create a group and to invite new members by sending them group invitation messages  
2) to receive a group invitation message and to accept it  
3) to send a group membership request and which is to be accepted  
  
If you would like to invite a person who does not have the client application installed you need to send the Web link to the installation download.  
  
The number of the group members is restricted.  
  
It is expected that people will invite their personal friends to the groups. This effectively means that the structure of DSN can replicate the structure of the society.  
  
DSN simplifies communication between the groups of people who are connected in the real life.  
  
  
**3. What is Done**  
This is my personal project, I work on it for about 1 year in my free time.  
  
What is already done:  
  
- the Java library to access the personal storage - 100% ready  
- the client application for Android - about 80% ready; needs more testing, some development and the design of the graphical elements

The Java library to access the personal storage is installed together with the client application.  
  
The only mandatory requirement of DSN to the client application is to use specific JSON format of the messages. In this case it can be used by the members of DSN. There are no requirements to the personal storage. This makes DSN an open project which can be extended by other developers.