Security measures for the project

Group 2 has decided to develop a phone application. In order to align with the requirements and to program in C#, the chosen platform will be a Windows Phone. Naturally, considering security measures for a phone application is somewhat different than for a normal web application.

Firewall:

Generally a hardware or software that examines the data and information traffic between networks and hosts, and blocks data flow if necessary according to its settings and regulations.

The three main types of firewalls are the following:

* Application Layer Firewalls (Proxy Firewalls):
* Packet Filtering Firewalls
* Hybrids

The characteristic of the project requires a server-side firewall. The phone app for the project runs on Windows 8.1, therefore a Windows Server 2012 Firewall sounds like a fair and obvious choice to implement. With WS 2012 Firewall it is possible to set up inbound and outbound rules for data traffic.

According to the above mentioned specifics, the architecture looks as follows: Clients access to the application via their phone. When they register, want to modify data or want to get access to information, they are directly connecting to the servers which are protected by the firewall. The firewall checks whether the access is authorized or not, and if the provided data / data type is valid and not harmful.

Configuration: There are several ways of configuring the firewall. One possible configuration is to choose to set inbound rules (rules for information inflow, in order to check inward data traffic). Afterwards, rule type needs to be selected. The possible options are Program, Port, Predefined and Custom rule types. Selecting Custom rule type, the program (application) needs to be selected. Then, the protocol type can be chosen (TCP, FTP, etc.). Selecting TCP, Local or Remote IP addresses can be selected if necessary (in this case, it is perhaps mainly local). The last step is to decide what happens when the conditions for the rules we have set up are meeting. It is possible to Allow, Allow if secured or Block connection when the rule applies. In the case of this project, blocking connection is the way to go.