

# **ECE 456: Project Proposal**

## **OIS: Online Initiative System**

### **A Secure ‘We, the People’**

## **1 Abstract**

We propose to implement a secure governmental website, to enable citizen of the country to sign popular initiatives in a secure way. It should provide protection mechanisms to ensure the same level of security as the pen and paper system.

## **2 Problem statement**

‘We, the People’ is a petition system created by the White House that allows U.S. citizens to create and sign petitions online. Even if this is a great solution to increase the communication between taxpayers and the government, it is not suitable for initiatives. For instance, a non-U.S. citizen can easily create an account and sign petitions. Therefore, there is a need for a stricter protocol to ensure the indentity of a real voter.

## **3 Our solution**

We propose to create a web server in a test environment which will provides the software prototype for such a system. A part of the registration process would not be electronic, therefore we will only plan this part and not implement it.

We will use a secure protocol such as HTTPS to establish an encrypted connection between the voters and the server.

- 4   End-to-end security analysis
- 5   Pitfalls of using our approach that we didn't address
- 6   Usability issues
- 7   References