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SECURE SMS NOTIFIER

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INITIAL PROBLEM

- ▶ Receiving notifications from mobile phones on a computer
- ▶ Most 3rd party apps use clear text
- ▶ Task:
 - ▶ Direct connection between computer and mobile
 - ▶ Focus:
Appropriate protection mechanism

OUR APPROACH

- ▶ Mobile application is only used to create new connections
- ▶ Without app open in background:
Send SMS on SMS receive
- ▶ Server generates and deploys key by QR code
- ▶ Application works for:
 - ▶ Multiple devices
 - ▶ Multiple server

ENCRYPTION

- ▶ AES GCM

Advanced Encryption Standard: Galois / Counter Mode

- ▶ Integrity

- ▶ Authenticity

- ▶ Confidentiality

- ▶ Authenticated encryption (state of the art)

FINAL RESULTS

- ▶ Server:
 - ▶ Stable cross platform desktop application (Java)
- ▶ Mobile:
 - ▶ Developed for Android only
- ▶ Easy and secure connection establishment

Welcome to SecureSMSNotifier!

This application encrypts received SMS, sends them to your PC and visualizes them.

In order for this application to work correctly you need to install the following plugin for your Browser.

<https://www.secureSMSnotifier.com/download>

After installing, run the server application and scan the given QR with this app. To do so, press the lower floating camera symbol. Afterwards, the server will be inserted in the following list.



MyNotebook

192.168.0.87



THE MOBILE APP



Welcome to SecureSMSNotifier!

This application encrypts received SMS, sends them to your PC and visualizes them.

In order for this application to work correctly you need to install the following plugin for your Browser.

<https://www.secureSMSnotifier.com/download>

After installing, run the server application and scan the given QR with this app. To do so, press the lower floating camera symbol. Afterwards, the server will be inserted in the following list.



MyNotebook

192.168.0.87







Created by **Alex & Alex**

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Details

Server name:
MyNotebook

IP address:
192.168.0.87:6323

Added:
19:44, 16/01/2018

DELETE

RENAME

DISABLE

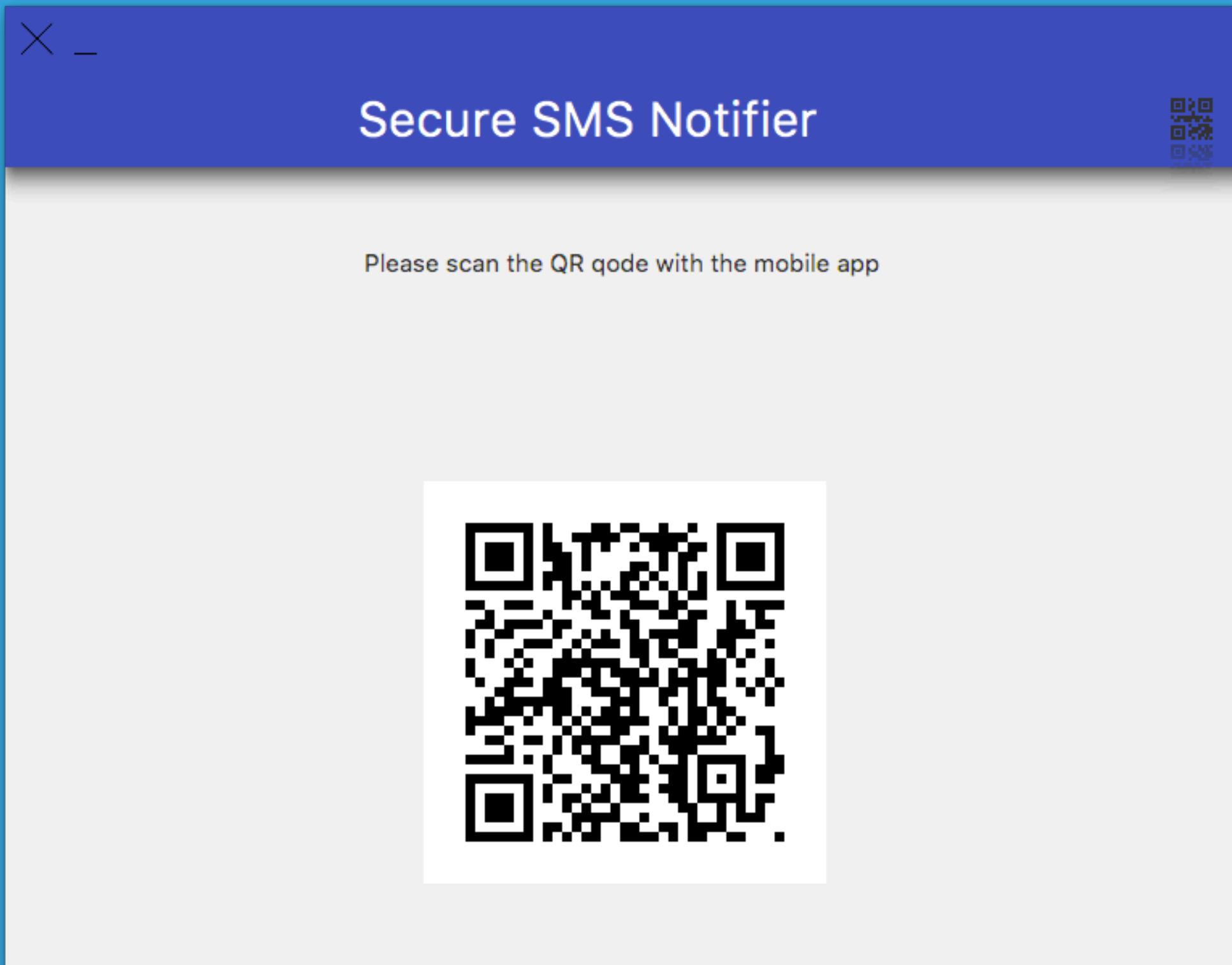
No scanner found

Download a scanner code activity?

NO

YES, PLEASE



THE SERVER APP





Secure SMS Noti

From:

-  Felix Musterman
-  Max Musterman

Messages:

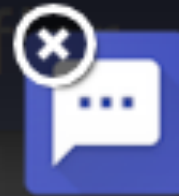
This is an example SMS!
00:00, 01.01.2018

This is a second example SMS!
00:01, 01.01.2018



SMS from Max Musterman (+431234567890)

This is an example SMS!



SMS from Max Musterman (+431234567890)

This is a second example SMS!

FUTURE EXPANSIONS

- ▶ Bidirectional:
 - ▶ Reply possibility
- ▶ Cross platform mobile application
- ▶ (Better separation of input devices)
- ▶ Improvement of UI

**THANK YOU
FOR YOUR ATTENTION**

Alexander Grass & Alex Maestrini