PEPP-PT

Pan-European Privacy-Preserving Proximity Tracing

Overview of Sample Mobile Application

Executive Summary

The PEPP-PT functionality of the system is delivered to users in the form of a smartphone app. The app serves as the user’s device to determine proximity to other PEPP-PT phones. The interactions to verify a user’s infection status and to notify other users about proximity events that may have been an exposure risk are also performed through the app.

An overview for the sample mobile application is provided. The described functionalities are generic, and refer to the PEPP-PT approach in general. That is, any country or government specific requirements may require extension or restriction of certain functionality.

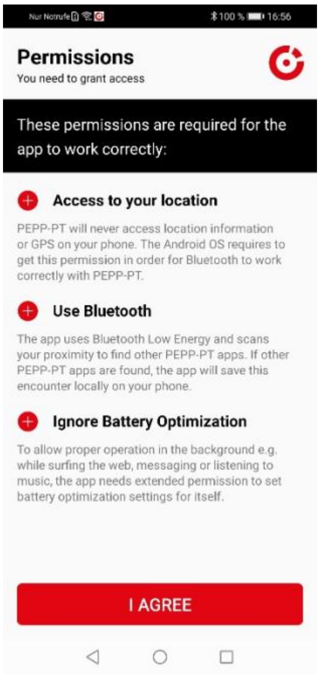
Contents

1 Description

The mobile application is being developed for both, Android OS (target level >= 28), and Apple iOS (>= iOS version 11). The user interface is very simple. The description provides an overview of a sample mobile application. Four major areas are addressed from an UI perspective:

1. Registration and OS permissions
2. Proximity tracing
3. Infection-status verification and upload
4. Proximity warning

1.1 Registration and OS Permissions



Permissions

You need to grant access

These permissions are required for the app to work correctly:

Access to your location

PEPP-PT will never access location information or GPS on your phone. The Android OS requires to get this permission in order for Bluetooth to work correctly with PEPP-PT.

Use Bluetooth

The app uses Bluetooth Low Energy and scans your proximity to find other PEPP-PT apps. If other PEPP-PT apps are found, the app will save this encounter locally on your phone.

Ignore Battery Optimization

To allow proper operation in the background e.g. while surfing the web, messaging or listening to music, the app needs extended permission to set battery optimization settings for itself.

The app can be voluntarily downloaded from the respective app store.

After download, no user names, passwords, or any other traditional requirement for user credentials are requested.

Once users decide to enable the proximity tracing mechanism, it is requested that the user turns on the Bluetooth functionality. On Android phones, access to Bluetooth results in the requirement to access location data – the PEPP-PT system never stores or transmit location data. The warning is caused by the fact, that any Bluetooth device may potentially be tracked by external Bluetooth scanners. This potential tracking is also addressed by the PEPP-PT Bluetooth scheme that changes any information it broadcasts, e.g. every 15 or 30 minutes. This dynamic behavior of non-reused, changing IDs in the proximity signaled effectively prevents tracking.

All data are deleted when uninstalling the app.

1.2 Proximity Tracing

With registration in place and permissions enable Bluetooth, proximity measurements can be conducted. The user will not need to interact nor is any notification to the user available. The whole process happens entirely in the background. The measured proximity data remains encrypted on the phone. Data that are older than 21 days are deleted and replaced by newer data.

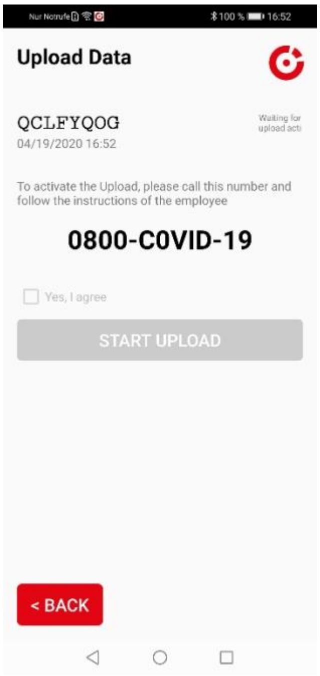
1.3 Infection Verification and Upload

A secure and trusted mechanism to validate infection status should be provided. To address this, digital mechanism similar to a Transaction Number (TAN) scheme could be used. For more details, see the description of the infection verification service.

Given the verification, the user can upload data that activate the proximity tracing mechanism of PEPP-PT. The upload is voluntary and explicit user consent is required.

There is no automatic upload process provided. Hence, only through app and by the consent of the user, the upload can be initiated.

After successful upload of all proximity data, all data on the phone will be deleted, all activity of the application including proximity measurement using Bluetooth will be disabled forever.



Upload Data

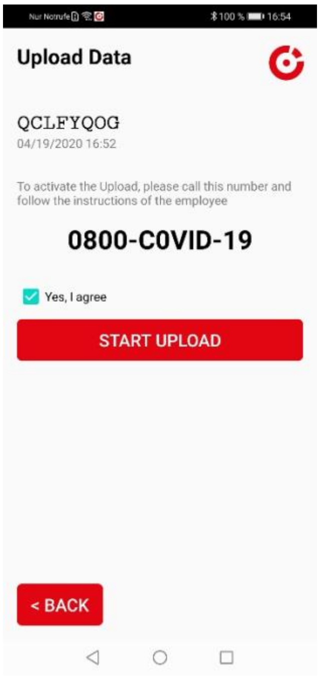
QCLFYQOG
04/19/2020 16:52

Waiting for
upload acti

To activate the Upload, please call this number and follow the instructions of the employee

0800-C0VID-19

□ Yes, I agree



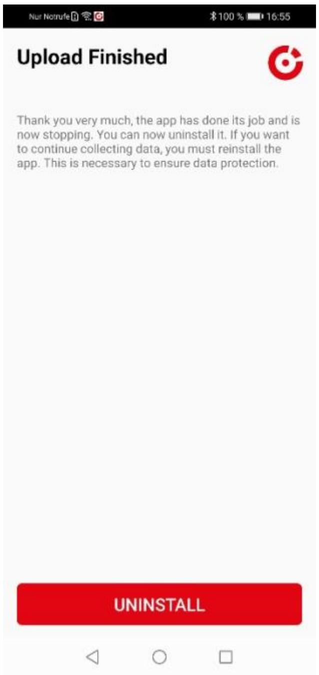
Upload Data

QCLFYQOG
04/19/2020 16:52

To activate the Upload, please call this number and follow the instructions of the employee

0800-C0VID-19

☑ Yes, I agree



Upload Finished

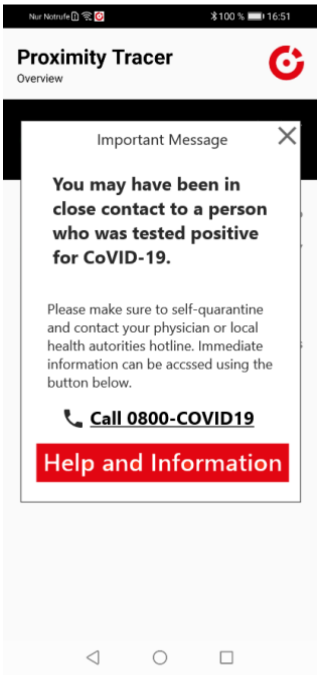
Thank you very much, the app has done its job and is now stopping. You can now uninstall it. If you want to continue collecting data, you must reinstall the app. This is necessary to ensure data protection.

1.4 Proximity Warning

Based on a risk score, a possible contact of an index case receives an encrypted and anonymized notification message and will be informed about the possible exposure.

The message could be coupled with suggestions about a voluntary operational follow-up process. If the user receives such message, a help information link should be provided. The suggestions may include that the user should immediately self-quarantine, get advice from a call center, contact a physician, and/or the health authorities in charge.

For more details see the description of the proximity warning service.



Proximity Tracer
Overview

Important Message

You may have been in close contact to a person who was tested positive for CoVID-19.

Please make sure to self-quarantine and contact your physician or local health autorities hotline. Immediate information can be accssed using the button below.

☎ Call 0800-COVID19