Privacy Protection Check
for Video Surveillance Systems

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VIPP – Videovigilància Informatitzada amb Protecció de la Privadesa

Introduction

This document presents the Privacy Protection Check for Video Surveillance Systems (PPC-VSS).

This is a mobile application that allows individuals to check, in real time, if their privacy has been properly protected when passing nearby a video surveillance system (VSS).

How does it work?

Any VSS that takes care of using privacy enhancing technologies to protect the privacy of individuals can be registered to the PPC-VSS. Systems might use video processing techniques to detect faces or moving objects (i.e. people, car plates… the so called regions of interest). Then, a video transformation operation such as pixelization, blurring, scrambling, etc. is applied over the region of interest.

If a VSS is registered to the system, the latter is aware of the location (in terms of latitude and longitude) of the VSS. The VSS operator obtains a QR code to be shown in the mandatory video surveillance sign. The following is an example of this sign, of a VSS that is registered to the system:

THESE PREMISES ARE UNDER VIDEO SURVEILLANCE

Owned by   URV

Operated by   Consergeria ETSE

HIGH TRUST

Use the PRIVACY PROTECTION CHECK APP and use this VSS QR code to check if your PRIVACY has been PROTECTED.

Any person with a smartphone can make use of the system. On the one hand, the smartphone must have location capabilities. On the other, a 3G Internet connection is recommended.

The user opens the application and takes a picture of the QR code:

Then, the smartphone receives the video corresponding to the last minutes of recording. The application asks the user if their privacy has been properly protected (for example, the video processing algorithms could fail at detecting the regions of interest).
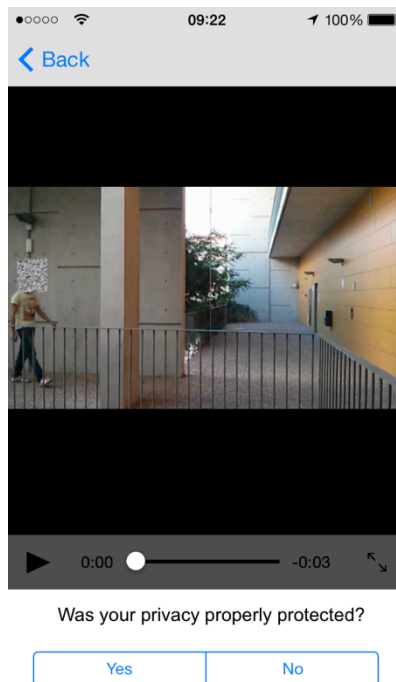
After the user has answered Yes/No, the application shows a thanks message:
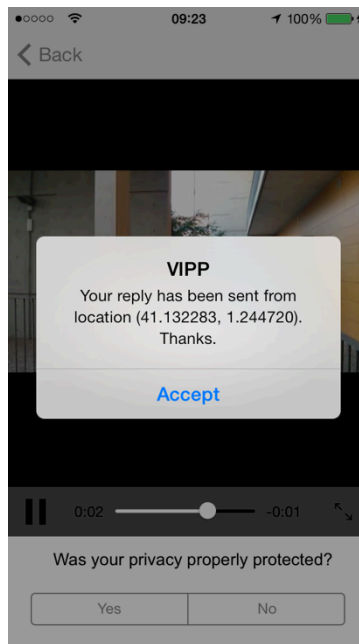
Design

The application scans a QR code, that must point out to a valid link of PPC-VSS server.

If the URL obtained is not valid, the application shows a message.

The URL specifies, thanks to the QR code, the identifier of the VSS.

If the URL is valid, the location is added to the URL, so the server is aware of the location of the user. This location is used to check whether the user is really nearby the VSS.

The server returns a video that is played in the application.

Finally, it collects the feedback from the user.