



Pan-European Privacy-Preserving Proximity Tracing

# Overview of the Proximity Warning Service

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## Executive Summary

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. From there, the voluntary operational follow-up process with the health authorities can be conducted, which will typically be country-dependent.

At no point should any PEPP-PT-based system be used to monitor the behavior of infected individuals or those at risk. That is, the privacy-preserving characteristics do not end with notification, but are maintained in the periods after the notification (i.e., PEPP-PT provides no means through which a government—or anyone else—can control or monitor at-risk individuals).

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## Why is there a proximity warning service?

When users of the app are notified that they may have had contact with an infected person, they are faced with a situation for which they may not have any abilities or knowledge at all. There are many unanswered questions. Therefore, from a psychological point of view, assistance must be provided by a mechanism provided through the app.

The app will need to provide assistance guided by health psychological theories on risk perception, decision-making and problem-solving as well as from a cognitive psychological perspective.

This service is intended to ensure that the user does not panic after receiving the message. He/she is not left alone but rather accompanied into the quarantine. Helpful rules of conduct are presented to him/her in small process steps.

## What is included in the proximity warning service?

The user is requested to go home immediately. Suggestions are made on how to keep the risk of infecting others as low as possible on the way. To support risk awareness and problem-solving orientation, evidence-based information on the disease is presented (e.g. “Most of the COVID-19 diseases are mild cases, but we need to protect the vulnerable groups.”) Subsequently, a telephone call to the hotline or the public health department is recommended. Symptoms are explained again and red flags (e.g. Symptoms of severe sequelae) are shown to ensure that high-risk cases (and only those) seek medical support immediately.

Contact persons with no symptoms or mild symptoms are recommended to contact their family doctor, the public health department or official test centers for a RT-PCR-test (virus-test). For the time in quarantine, the app draws on the recommendations of the local health authorities.

Our approach is to use web-links to display recommendations by health authorities' information sources. This way, it is possible to make changes to the recommendations without having to update the app itself. This reduces the time in which changed information reaches the user and allows for more flexibility.

The assistance texts from the message to self-quarantine are transparent for all users and can be previewed as soon as the app is installed. This can increase the user's self-efficacy for the emergency situation, which is always an important dimension in health psychological interventions when it comes to behavioral change.