

【欧州】【Common】

Common - COVID-19 response and transport: Interoperability gateway to link EU Member States' contact tracing and warning apps goes live

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【概要 : Summary】

The free movement of citizens is one of the fundamental pillars of the EU, which has been negatively impacted by the COVID-19 pandemic. The lockdowns and closing of borders within the EU's Schengen area during the first wave of the pandemic led to severe travel restrictions between and within many EU Member States. Unilateral decisions on quarantine rules and extended PCR testing obligations in some Member States or even regions are still restricting the free movement of people. This results in problems for the passenger transport in general and the EU's tourism industry in particular. While the pandemic continues, there are increased efforts to harmonise and coordinate the EU Member States' individual restrictions of the free movement of people. As the second wave of the pandemic has already arrived, the freedom of movement can only be maintained if contact tracing to infected people is possible at the same time in order to contain the further spread of the SARS-CoV-2 virus within the population. The mobile applications ("apps") for smartphones can support health authorities at national and EU level in monitoring and the on-going COVID-19 pandemic. This digital technology of contact tracing via apps on smart phones, if deployed correctly, could contribute to containing and reversing the spread

of SARS-CoV-2 virus amongst people living and travelling in the individual EU Member States but also within the entire EU.

Accordingly, the EU has announced to have developed and introduced a new interoperability gateway to link all first contact tracing and warning apps existing the individual Member States at EU level. This interoperability gateway allows to warning citizens travelling cross-border between EU Member States, using the tracing app for smart phones of their country of origin in another EU Member State. Travellers can thereby stay informed in the entire EU if they have been exposed to SARS-CoV-2 positive people, also while travelling in other EU Member States. The interoperability of the several tracing app services in the EU can also facilitate the medical follow-up of patients and provide direct guidance also to citizens while travelling in another EU Member State.

【記事 : Article】

1. The purpose of using contact tracing apps
In the course of the COVID-19 pandemic, at EU and world level, the European Centre for Disease Prevention and Control (ECDC) and the WHO have asked to identify and follow up at national level contacts linked to each COVID-19 case so as to interrupt transmission and the further spreading of the

SARS-CoV-2 virus. Contact tracing and warning can play an important role in all phases of the COVID-19 pandemic, especially as part of containment measures. However, manual tracing processes relies on the patient's memory and obviously cannot trace individuals who have been in contact but who are unknown to the patient. Therefore, digital tools such as tracing and warning mobile apps for smart phones can be of substantial support in this tracing process. Mobile apps can support health authorities at national and EU level in monitoring the on-going COVID-19 pandemic, facilitate the organisation of medical follow-up of patients and provide direct guidance to citizens on playing their part in the control of the disease. Therefore, most EU Member States have decided to launch mobile apps for smart phone users to complement manual contact tracing of the spread of the SARS-CoV-2 virus, as they can identify both, known and unknown contacts of a confirmed COVID-19 case. This is especially helpful as most EU Member States keep their borders in the Schengen area open now, even though the COVID-19 cases are significantly rising. The functionality in such apps could be very useful for EU Member States to rapidly detect contacts of COVID-19 cases, given that a large scale of over 50% of the population uses them.

However, the current problem is not only the compliance of the population in each EU Member State to use the tracing apps. The main problem with these contact tracing and warning apps, which have been developed individually by the EU Member States, is that they lack of their functionality if a user crosses the border to another EU Member State. The 27 EU Member States have not only developed a patchwork of individual rules and countermeasures against the COVID-19 pandemic. They have also developed more than 20 different tracing and warning apps. The apps mainly can be distinguished by their system, which can be centralised, like in case of France and Hungary, or they have a “decentralised” system where the calculations happen in the user's app. This “decentralised”

system has been adopted by the majority of EU Member States. In case of the “centralized” systems, the calculations take place on a secure server of the national health authority. Furthermore, some EU Member States have no intention to introduce a tracing app, like Bulgaria, Luxemburg or Sweden. However, the SARS-CoV-2 virus does not stop at borders and the fragmented and uncoordinated approach of national tracing apps is hampering the effectiveness of detecting cases when people travel to another EU Member State. Therefore, most of the EU Member States, supported by the European Commission, have been working on an interoperability solution for connecting their national contact tracing and warning apps, in order to end the fragmentation of tracing services.

2. A common approach for cross-border interoperability of contact tracing apps in the EU

In an effort to confine the further spread of the SARS-CoV-2 virus, and to support the national health authorities to trace contact persons of people confirmed to be COVID-19 positive, the majority of EU Member States introduced the contact tracing apps for smartphones.

At EU level, the European Commission set out in the Commission Recommendation of 8 April 2020, that the EU-wide e-Health Network, provides a practical guide for Member States and sets up a common approach, referred to as a toolbox to use digital means to address the COVID-19 crisis. The voluntary eHealth Network was set up under article 14 of Directive 2011/24/EU and provides a platform of Member States' competent authorities dealing with digital health. In order to collaborate and manage cross-border transmission chains between EU Member States, national health authorities should be technically able to exchange available information about individuals infected with and/or exposed to COVID-19. Therefore, the Member States in the eHealth Network, supported by the Commission, have developed the toolbox for the use of the mobile apps

for contact tracing and warning. Tracing and warning apps should follow common interoperability protocols so that the previous functionalities can be performed, regardless of where a device is located in the EU.

The toolbox consists of practical measures for making effective use of technologies and data, with a focus on a pan-European approach. This will involve a methodology monitoring and sharing assessments of effectiveness of these applications, their interoperability and cross-border implications, and their respect for security, privacy and data protection.

All actions need to be in accordance with EU law, in particular law on medical devices and the right to privacy and the protection of personal data along with other rights and freedoms enshrined in the Charter of Fundamental Rights of the EU. A common approach requires a cross-border interoperability mechanism, complementing current solutions such as the Early Warning and Response System. The EU Member States are converging towards effective app solutions that minimise the processing of personal data. They have also recognised that interoperability between these apps at EU level can support public health authorities and can help to maintain the EU's internal borders open, even in a second wave.

3. The preparations to create interoperability of tracing apps

As set out in the Commission Recommendation of 8 April 2020, the tracing app as digital technology, if deployed correctly, could contribute substantively to containing and reversing its spread. Already in the Commission's Recommendation, contact tracing apps were in the focus of a common approach to the use of mobile apps and data.

Contact tracing apps need to be fit for purpose, compliant with applicable laws and respecting the values and fundamental rights and freedoms of the EU. At a national level, the available app should

be officially recognised by the public health authority. Their acceptance and take-up by individuals depends on whether the public perceive them as effective, accurate, privacy-protective and trustworthy, avoiding mass surveillance and strictly limited in time to the duration of the current crisis.

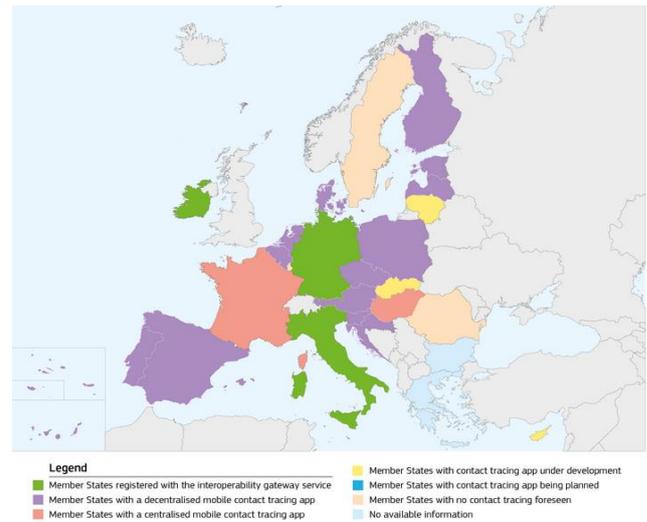
On 13 May 2020, the EU Member States, with the support of the European Commission, adopted interoperability guidelines for approved contact tracing mobile applications in the EU and on 30 June 2020 they approved technical specifications. A key principle of the guidelines is that users should be able to rely on a single app wherever they are travelling in the EU. On 6 June 2020, EU Member States, with the support of the Commission, agreed on a set of technical specifications for implementing Recommendation C/2020/2296, as well as for other follow up actions and possible further recommendations to the Member States. The technical specification for interoperability will allow users travelling from other Member States, without the need to download several national apps and to just proceed with their tracing app when travelling in another EU Member State.

4. Interoperability gateway launch and first contact tracing and warning apps links

The Member States, together with the Commission, have set up the interoperability gateway to allow national apps to talk to each other across borders in Europe. Contact tracing and warning apps are only used voluntarily, based on Bluetooth proximity technology, respecting the users' privacy and do not enable the tracking of people's locations. The gateway is set up by T-Systems and SAP and the server itself is hosted in the European Commission's own data centre in Luxembourg. EU Member States are joint controllers for the European Federation Gateway Service. The participating Member States determine together the purpose and means of processing data through the federation gateway.

On 14 September 2020, the Commission announced to have started testing the interoperability gateway service for national contact tracing and warning apps. The Commission started the test runs between the backend servers of the official apps from the Czech Republic, Denmark, Germany, Ireland, Italy and Latvia, and a newly established gateway server. The modalities for the processing in the EU's interoperability gateway service and the technical specifications are defined in the Commission's adopted Implementing Decision (2020/1023) of 15 July 2020. Currently, the interoperability gateway service works according to a "decentralised" system where the calculations happen in the users' app. This "decentralised" system, in combination with the gateway services enables these apps to be used across EU Member States' borders. The EU Member States using decentralised systems will already be able to update apps to permit information exchange between national, decentralised apps as soon as they are technically ready. There are more than 20 apps of EU Member States, which are based on decentralised systems that can be interoperable through the gateway service. Solutions are also being analysed to include the "centralized" systems, where the calculations take place on a secure server of the national health authority. The Commission continues to support the work of Member States on extending interoperability also to the centralised tracing apps in France and Hungary. After the conclusion of a successful pilot phase, the EU's interoperability gateway service system went live on 19 October 2020. With the first wave of national apps now linked through this service, there are Germany's Corona-Warn-App, Ireland's COVID tracker, and Italy's immune interconnected within the EU's interoperability gateway service. Together, these apps have been downloaded by around 30 million people, which corresponds to two-thirds of all app downloads in the EU. The second group of apps will be linked by the end of October 2020. In this second step, the Czechia's eRouška, Denmark's smitte stop, Latvia's Apturi COVID and Spain's

Radar Covid are expected to join.



Map 1: The EU Member States with national tracing apps and gateway service connection status as of 19th October 2020

Source: https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-during-coronavirus-pandemic/how-tracing-and-warning-apps-can-help-during-pandemic_en

The European Commissioner for Single Market Thierry Breton stated that "free movement is an integral part of the Single Market - the gateway is facilitating this while helping save lives." The Commissioner for Health and Food Safety Stella Kyriakides added that with COVID-19 cases on the rise again the tracing and warning apps can effectively complement other measures like increased testing and manual contact tracing. When working across borders, these apps are even more powerful tools. With the EU's gateway system's start on 19 October 2020, finally the EU Member States' national apps will be connected across Europe and contacts can be traced during or following a trip also when travelling to other EU Member States.

5. Conclusion

COVID-19 pandemic continues to have an unprecedented negative impact on the free movement of people in the EU and worldwide. In the current

second wave of the pandemic in the EU, with seriously increasing numbers of COVID-19 cases, most of the EU Member States intend to keep the borders open, especially within the Schengen area. It has been widely acknowledged that contact tracing apps, if fully compliant with EU rules and well coordinated, can play a key role in all phases of crisis management to trace and confine to further spread of the SARS-CoV-2 virus. However, the fragmented and uncoordinated approach regarding the introduction of contact tracing apps amongst the EU Member States risks hampering the effectiveness of this tool, aimed at combating the COVID-19 crisis. Therefore, while maintaining the freedom of movement of people within the EU, the national tracing apps of EU Member States need to be interconnected in order to function also beyond the individual Member States' national borders. Therefore, the cross-border interoperability gateway service mechanism, for connecting the several national tracing apps is an indispensable tool to warn people about encounters with COVID-19 positive tested persons when travelling to other EU Member States. The introduction of the interoperability gateway at EU level will allow people travelling within the EU while benefiting from their national contact tracing alert system and receiving alerts, be it in their home country or abroad. Thereby, it will be possible to trace COVID-19 positive cases also across the EU Member State borders as soon as the national contact tracing and warning apps are connected to the EU's interoperability gateway.

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