

# Q&A

## Fact sheet on COVID-19 Smart Management System



### 01 Reason and background for introducing the data platform?



- As the number of confirmed cases of a novel coronavirus (COVID 19) increased in Korea, the need to digitize epidemic investigation activities (e.g. communications between agencies, exchanges of documents, digitization of handwritten documents, etc.), mandated under the Infectious Disease Control and Prevention Act became essential.

The case for building a digital platform for these activities grew even stronger as large outbreaks in several local regions overwhelmed the health officials responsible for contact tracing, leading to, in some cases, delays in their response.

Recognizing this demand, Ministry of Land, Infrastructure and Transport (MOLIT) of Korea proposed repurposing the City Data Hub System, an urban data management platform under development as part of the national smart city R&D program, to carry out these tasks more efficiently.

After the proposal was made on February 26, a prototype platform was created on March 1, which proved its applicability to epidemic response. The official development of the platform started from March 9, which included setting-up of the coordination network among relevant agencies as well as the government guideline on personal data protection. After a ten-day pilot operation period from March 16 to 25, the data platform was introduced into service from March 26.

### 02 Benefits of the data platform?



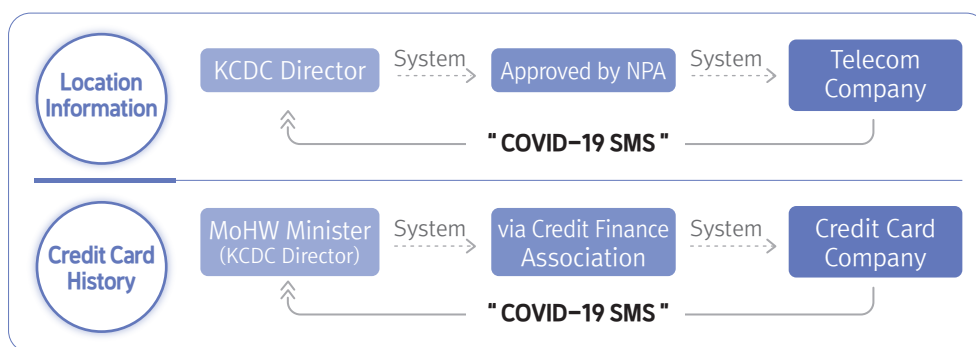
- The data platform helped strengthen Korea's response to COVID 19 in three ways. First is streamlining of the administrative process required for personal data request. The conventional way of acquiring personal information for contact tracing involves a health official seeking separate permissions from all the authorities and companies holding the information. By bringing all the relevant parties (KCDC, National Police Agency, Credit Financial Association, 22 telecommunications companies, three credit card companies) to one place, the platform makes this process less bureaucratic and less time-consuming. To reduce the response time further, text message alerts are sent to relevant officials or company personnel as the process moves to each phase. Overall, it results in cutting the time to complete the data analysis process from 24 hours to less than 10 minutes. Second, the data platform strengthens personal data protection. Access to the personal information kept in the platform is strictly limited and the system logs all the access records. Third, the big data analysis provides inputs for timely government interventions and swift response to the disease.

### 03 Operation procedure of the data platform?



- Personal information stored in the platform includes location information provided by three telecommunications companies and credit card transaction records provided by 22 credit card companies. Any collection of the information is performed in full compliance with the Article 76-2 of the Infectious Disease Control and Prevention Act. Before data collection, however, a health official in charge of a confirmed/highly suspected case carries out an interview to confirm basic facts about the person and notify and inform about the data collection to be conducted. Also, it is during this stage the official makes a professional judgement on whether additional information should be gathered, which usually involves cases of uncertain infection dates or patients with imperfect memory.

Following a notification is given to the patient, the process for seeking permission to gain access to personal information begins. For location information, KCDC asks for a permission from the National Police Agency, which upon granting the permission, makes a formal request to three telecommunications companies. For card transaction information, permissions are granted by the Credit Financial Association, which extends its request to credit card companies.



### 04 Improvements made to the data request process?



- When it comes to location data provision, the National Police Agency serves as an intermediary between KCDC and telecommunications companies. The data platform streamlines this coordination process by introducing a system where each data request is processed digitally in the platform- from KCDC asking for a permission from the National Police Agency, the National Police Agency granting the permission and relaying the request to telecommunications companies to the companies' providing relevant information. This integrated approach cuts phone calls and paper works between the entities dramatically.

To minimize delays, an alert goes out to a relevant entity in charge of each phase of the process, either via the platform or text messages.

The platform also reduces the risk of unnecessary exposure of personal information by altering the data provision process in a way where the telecommunications companies send the information to the end-user, KCDC, directly, leaving more time for response.

But streamlining does not mean bypassing the due process. Seeking permits from the National Police Agency and due procedures for information request will be administered in accordance with relevant laws and regulations.

## 05 Legal basis for use of personal information?



- The Article 76-2 of the Infectious Disease Control and Prevention Act gives the health authorities the mandate to use personal information for infectious disease control. The Act was revised in July 2015 after the outbreak of MERS in the same year, which raised the public's awareness on the necessity of personal information use for containment of infectious disease.  
But the Act presents the list of the disease that allows such a practice.

## 06 Access to the data platform?



- Access to personal information stored in the platform is strictly managed. Under the current set-up, only the KCDC officials and local government health officials in charge of contact tracing have access to the personal information and big data analysis produced by the platform. As for the National Police Agency, telecommunications companies and credit card companies, their access is limited to only the information they provided. Access by other government ministries or agencies are denied.  
When MOLIT transferred the data platform to KCDC, it revoked all of its temporary access active during pilot operation.

## 07 Measures for personal information protection?



- All activities on the platform will be conducted in full compliance with relevant laws, regulations and due process. (Refer to No. 4)  
Data collection under the platform is limited to confirmed cases or highly suspected cases and requires notification to the affected people prior to collection. All the personal information gathered will be anonymized to avoid the risk of identity exposure.  
Above all, the data platform is a temporary measure put in place to cope with COVID 19. The system as well as all the personal information stored will be deleted upon completion of the official response to the disease.

## 08 Public access to the data platform?



- Access to the data platform is limited only to the KCDC officials and local government health officials in charge of contact tracing.  
Officials need the access to personal information (location information, credit card transaction records) to correlate the data with the interviews they conducted with the patients and to produce reliable contact tracing results. What the general public can see is the final, anonymized contact tracing results released by their local governments.  
To prevent data breach, the platform runs on a virtual private network.