

# Towards an Open European DFaaS Platform

A feasibility study by the NFI

In a world where subversive and organized crime are a major threat to European citizens and businesses, it is important to work together on relevant knowledge. The growing volume and complexity of digital traces in criminal investigations has become a serious challenge. How we used to do digital forensics is no longer fit for purpose. We need solutions that can scale to the volume of data and find better ways to keep our digital forensic knowledge up to date.



Since 2012, the Netherlands Forensic Institute (NFI) has been developing Hansken to provide Digital Forensics as a Service (DFaaS). In the past few years, the platform has been deployed at Dutch law enforcement and intelligence organizations and subsequently also to similar organizations in other European countries. The platform has already proven itself in over 1500 crime cases and withstood a profound judicial review.

A DFaaS platform is a centralized platform which can perform a series of functions:



**Turn digital evidence into individual traces**  
(chats, mails, documents, browser history, etc.)



**Usable by a wide range of users and organizations**



**Comply to relevant legal frameworks**



**Ensure forensic quality for use in court**

To further increase investigative power, law enforcement agencies and science institutes must closely cooperate in developing and sharing digital forensic knowledge. Taking this cooperation to the European Union makes perfect sense, since there is already so much collaboration within the EU.

If all EU member states were to use the same platform, the community would grow, the number of innovations shared between countries would increase, and information exchange between EU agencies would become easily possible. In order to make such an open platform available to all European law enforcement agencies, several key aspects need to be explored to determine whether this is feasible.

The main aspects to consider include alignment with European and national legislation, hardware requirements, software requirements, and a distribution licensing model. The goal is to first identify all key stakeholders from law enforcement agencies (LEAs) across all countries, interview them to gather the requirements, consolidate all findings, report back on them, and define potential next steps for the EU-wide implementation of the platform.

## For this feasibility study, 3 use cases will be explored:

### 1 Case investigation in each individual EU country

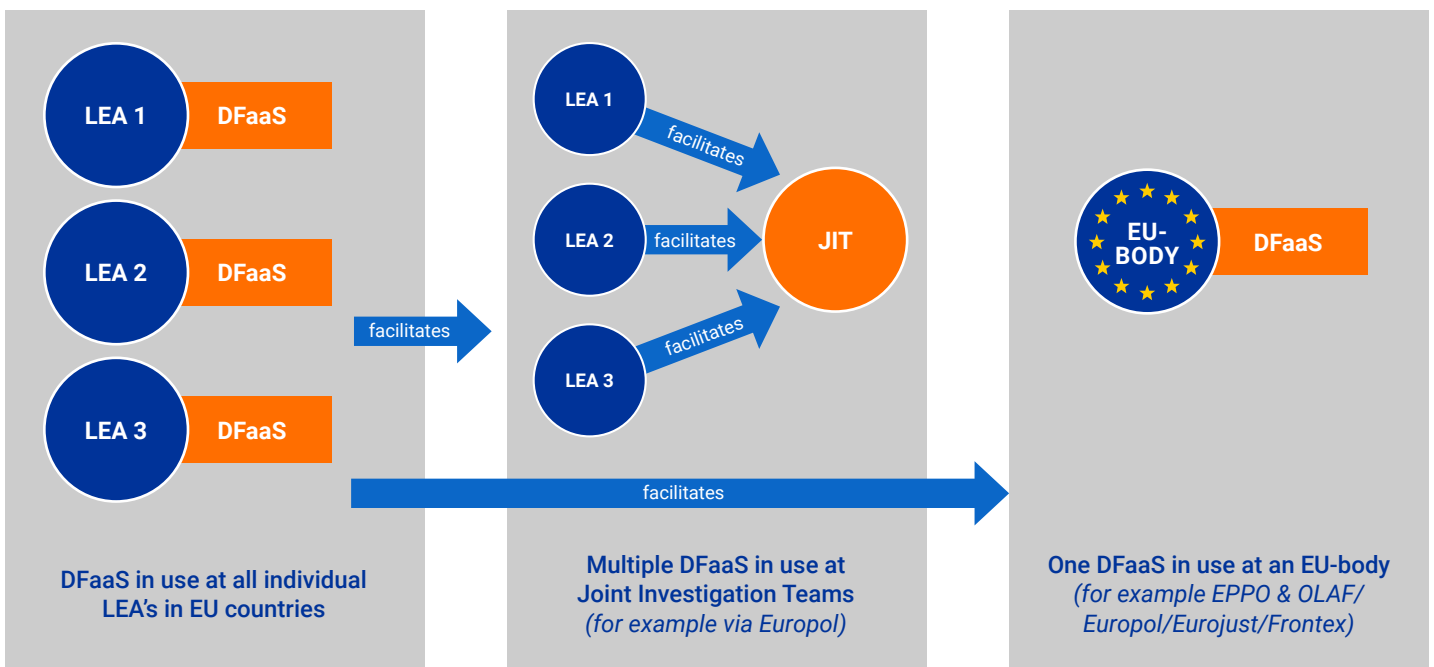
When multiple law enforcement agencies across Europe use the same platform, it becomes highly effective when links are discovered between ongoing cases in their respective countries. By sharing and cross-referencing information within a unified system, agencies can identify connections and patterns that may otherwise go unnoticed. This collaborative approach enhances the ability to solve cases faster and more efficiently, as investigators can access a broader range of data and insights from other jurisdictions. Fast exchange on evidence found is possible by exporting and importing a selection of data. Having the same DFaaS platform facilitates the other 2 use cases as well.

### 2 Joint case investigations of multiple EU countries

All the devices can be searched and analysed at the same time by multiple investigators. Sharing the findings inside the program between the people who participate in the investigation. If European countries use the same platform, sharing the information could be done inside the program (for example sharing notes and tags). The understanding of evidential data differs: investigator from another EU member state have a different view on it. For example: data seized in Greece might be understood different being reviewed by a Greek or a German investigator. Each national investigator has a different national case knowledge, the data is interpreted with a national point of view.

### 3 Central case investigation by an EU agency

European Organizations (EO) like Europol, Eurojust and EPPO are investigating Europe wide fraud and crime. During these investigations data from different countries needs to be reviewed by several national investigators and specialists of the EO. This is mainly done on premise in each country. A centralized analysis infrastructure could prevent this double work by providing the analysis in a central infrastructure. Everyone is seeing the same results in the same structure. Europol or EPPO could establish the links to other cases all over Europe via the same platform. Bonus: Evidential data could be accessed remote from EU national criminal investigators.



## European Exploration Project DFaaS - survey

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