

SimpliVi

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D3.2 e-CODEX Implementation

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Abstract

While some of SimpliVi's outcomes are intended as the basis for further research work in the domain, many of its recommendations are intended to provide practical approaches for implementers to improve the process of arranging and setting up video conferences in the judicial area.

As e-CODEX is the chosen path to go when it comes to judicial cross-border exchange, it is more than advisable to include the process of video conference arrangements and setups in more detail into existing and upcoming judicial use-cases.

This document explains some of the concepts in e-CODEX and presents different ways with which the business workflows of D2.2 ("Business Collaboration") could be introduced in e-CODEX procedures. It also elaborates on the potential data structure of possible VC forms, as discussed in D2.2.

History

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0.2	22.07.2025	First version for review	Bernhard Rieder
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1.0	25.09.2025	First published version	Mathias Maurer

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1. Introduction

SimpliVi (**Simplifying Cross-Border Judicial Videoconferencing in Europe**) is an EU-funded project with the aim of improving cross-border judicial videoconferencing. To achieve this goal the project partners from Austria, Greece, Poland, Germany, Spain and Portugal analyse the current situation of cross-border judicial videoconferencing, develop recommendations and provide best practise examples from a technical, organisational and legal perspective. Furthermore, the project partners develop an e-CODEX (www.e-codex.eu) implementation to support the workflow of the setup of a cross-border judicial videoconference.

The main driver for the project was the **COVID-19 pandemic** as it has clearly surfaced the need for further digitalisation, also with the help of videoconferences. At the same time, it has led to extended knowledge and experiences with videoconferences from legal, organisational and technical perspective.

An additional driver is the **European Regulation for the digitalisation of judicial cooperation**¹, which extends the application of cross-border judicial videoconferencing.

One of the main findings and thus recommendation of the SimpliVi project was that the process for setting up a judicial cross-border videoconference lacks details for the parameters of the videoconference. Deliverable D2.2 “Business Collaboration” proposed a **VC form** to add the lacking data and use existing workflows. These workflows are mainly based on the legal acts (Taking of Evidence² and European Investigation Order³) For these legal bases there is or will be the **obligation for judicial authorities to communicate electronically via e-CODEX**. Therefore, also for the proposed VC form some kind of **e-CODEX implementation** is necessary. The following chapters will explain the **approach** of the SimpliVi project and the **reasons behind this approach**.

¹ <http://data.europa.eu/eli/reg/2023/2844/oj>

² Regulation (EU) 2020/1783 of the European Parliament and of the Council of 25 November 2020 on cooperation between the courts of the Member States in the taking of evidence in civil or commercial matters (taking of evidence) (recast) - <http://data.europa.eu/eli/reg/2020/1784/oj>

³ Directive 2014/41/EU of the European Parliament and of the Council of 3 April 2014 regarding the European Investigation Order in criminal matters - <https://eur-lex.europa.eu/eli/dir/2014/41/oj>

2. Implementation Approach

So far, requirements for an e-CODEX implementation resulted in the definition of an e-CODEX use case. However, the setting up of a judicial cross border videoconference is not a workflow or use case of its own. Requesting such a videoconference is, from a judicial point of view, always part of a judicial procedure such as Taking of Evidence or the European Investigation Order. Thus, the request to hold a videoconference must follow these use cases.

Therefore, with all the e-CODEX experience of the SimpliVi project team, three approaches of how to technically integrate the proposed VC Forms into the e-CODEX use case structure without disrupting the existing business transactions and business workflows.

But before explaining the options that the project proposes for a technical e-CODEX integration, it shall be explained, what an e-CODEX use-case is and how it is (technically) configured.

2.1. What is an e-CODEX use-case? And how is it configured?

From a technical point of view, e-CODEX is a collection of standards that every e-CODEX implementation must follow. Only this way it can be achieved, that multiple business entities from different organizations in different countries are able to exchange e-CODEX messages and, therefore, make judicial cross border communication electronically available.

One of the core standards that are used in e-CODEX is ebMS 3⁴. Besides other very important definition on how the exchange of e-CODEX messages work, the ebMS 3 standard also describes the structure, how business documents are bundled.

This is done using so called “**Services**”. In e-CODEX, each **judicial instrument** is represented as such a “Service”. For example, there are Services for the European Investigation Order (EIO), or Mutual Legal Assistance (MLA), or Taking of Evidence (TOE).

Within each of those legal instruments are business workflows that are defined by **structured Forms**. A European Investigation Order, for example, is started by an issuing authority using the “Annex A – European Investigation Order”. Such Forms that represent legal actions within the judicial procedure, in e-CODEX and ebMS are configured as “**Actions**”.

So, to summarize, judicial procedures in e-CODEX are configured using “Services”, the legal instruments, and “Actions”, the business workflow steps represented mostly by structured forms.

2.2. Option 1: SimpliVi VC Forms as an e-CODEX use-case on its own

The most obvious possibility to integrate the SimpliVi video conference forms into e-CODEX is to create a use case on its own.

⁴ <https://docs.oasis-open.org/ebxml-msg/ebms/v3.0/core/>

In e-CODEX terms this would mean that there would be a new “Service” (e.g. “Videoconference”) with the several forms as “Actions” (e.g. “VCRequest”, “VCResponse”).

+	Implementing the SimpliVi forms as a separate use-case would have the advantage of being most independent from other judicial procedures and, in the end, also from software vendors supporting those. It also makes it easier to adopt the use-case in the future.
-	The disadvantage of this approach is that the video conferencing forms are technically not connected to the actual judicial case. There is, of course, a business relation (via e.g. a case number). But the advantage of independence for software vendors also makes it more complex to resolve connections to the procedures triggering the video conference.

2.3. Option 2: SimpliVi VC Forms embedded into e-CODEX use-cases.

There is, in e-CODEX, the possibility of having steps integrated into several use cases and become part of the conversation.

In e-CODEX terms this means that the VC Forms would be “Actions” (e.g. “VCRequest”, “VCResponse”) that could be integrated by configuration into existing “Services” like the European Investigation Order or Taking of Evidence.

+	The advantage of having it implemented this way into e-CODEX is the flexibility of integrate the VC Forms into other use cases without having to repeat their implementation. Also, in hindsight, the forms can be added to judicial procedures without having to change the business flows of forms.
-	On the other hand, this would require changes on the e-CODEX Configuration Management Tool (CMT) to be able to make this configuration, or at least makes it more complex to configure “Services”. Also, the integration into business software requires the implementation of the VC Forms not matter if used or not.

2.4. Option 3: SimpliVi VC Forms as attachments to e-CODEX forms

The third way of how the VC Forms could be used in e-CODEX is that they are not included in the business flows of judicial procedures at all.

There would be neither a “Service”, nor “Actions” for videoconferencing in the e-CODEX configuration at all. Instead, the VC Forms would simply be attached to business messages carrying another form of a judicial procedure.

For example, in EIO, when sending an “Annex A”, the message with the business content and document, which would be the Annex A, would have the VC Form attached.



+	This gives the most flexibility to e-CODEX as well as the implementation on the business software level. There is no e-CODEX configuration required, and there is no interruption of the business flows within use cases.
-	Though, this option would reduce the business meaning of the VC Forms since business software vendors do not need to implement the VC Forms into their products and the e-CODEX configuration and workflows can ignore the forms. The usage depends on the users having to know about the forms and the software products they use to have them implemented.

3. The SimpliVi VC Forms data structure

Chapter 5.1. of D2.2 (“Business Collaboration”) described a possible dataset for a proposed SimpliVi VC Form, from the perspective of the required data that should be exchanged by judicial authorities for the purposes of setting up a cross-border VC, taking into account the existing ToE and EIO related Forms (Form N and Annex A, respectively).

The following table(s) present a re-grouping and re-ordering of this dataset, towards an eventual data structure and machine-understandable structured implementation. It should be noted that the actual details of such an implementation (e.g. specific XSD, JSON) are out of scope of this deliverable, as they would rely on the discretion of the eventual implementing body of the solution. However, suggestions are made on the reuse of already-existing and well-established data models in the domain, such as the e-Justice Core Vocabulary.

3.1. SimpliVi VC Form Dataset

Group 1: Form and case metadata

Parameter	Comment	Data type
Form identifier	Unique identifier of form	String / UUID
Form type	Request, confirmation, counterproposal, cancellation	Number (select list)
Case number	Unique case identifier of the judicial authority’s case	String / UUID
Judicial authority details	Name, address and other details of the judicial authority	Object
Judicial authority role	Requesting / executing authority	Number (select list)

Group 2: Person(s) to be heard

Parameter	Comment	Data type
Person role	Roles: e.g. Victim, Witness, Expert, Suspect, Accused person	Number (select list)
Person details	Name, ID number, Date and place of birth, Nationality, Address, Languages Spoken - For identifying the person if invited by the other	Object

	party and to determine if an interpreter is needed	
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Group 3: Videoconference Details

Parameter	Comment	Data type
VC date/time (start/end) + TZ	One preferred date/time and (at least) two alternatives	Datetime
VC Test date/time (start/end) + TZ	One preferred date/time and (at least) two alternatives	Datetime
Room name or number	Physical court room (if other party wants to invite participants to the VC event)	String
Preferred form of connection	Endpoint (SIP/H.323) or URL (Zoom, Teams, Webex etc.)	Number (Select list)
Endpoint Connection Details	VC participant's hostname, domain name, IP number or gateway number of the endpoint device into which must be connected. - The ISDN number, in case ISDN connection is preferred. - Extension number (depending on the configuration) - If endpoint has mandatory encryption policy, it should also be noted here	Object
Videoconferencing URL	In case of Zoom, Teams, Webex, etc. URL to participate in the VC	String / URL
VC recording	Information, that the requesting authority will record the VC. (alternatively, a request to record the VC could be stated with a different parametername)	Boolean (Yes/No)

Group 4: Contact Information

Parameter	Comment	Data type
Contact Type	E.g. technical / legal contact	Number (Select list)

Contact Details	Name, email, phone and other essential information for setting up a VC connection. Functional mailboxes and/or multiple emails could be possible. Phone can be in the specific room or a technician's mobile or a phone of a clerk who can forward the call to technician. Multiple numbers could be possible. Furthermore, the languages spoken by the contact person should also be defined.	Object
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Group 5: Other

Parameter	Comment	Data type
Translation assistance	If translation assistance is necessary, indicate the required language	Number (select list)
VC information resource	Link to information resource about national VC framework (legal, technical organisational information)	String / URL
Other comments		String
Date of Request		Datetime


3.2. Using existing vocabularies/lists

As can be seen above, there are some instances in the proposed data form where either more detail is needed (e.g. an object with more details) or data must be selected from a pre-configured list (similar to a drop-down list). In these cases, it would be beneficial to use pre-existing vocabularies, which can range from a simple "country selection" to more complex ontologies and/or vocabularies, such as the "EU e-Justice Core Vocabulary", which is "the asset deployed to (re)use semantical terms and definition and to ensure data consistency and data quality over time and across use cases" in e-CODEX⁵.


For example, both the "Judicial Authority" and "Person details" / "Contact Details" objects in the above data structure could very easily be replaced with the equivalent objects (nodes) from the EU e-Justice Core Vocabulary, as shown below:

⁵ <https://www.eulisa.europa.eu/activities/large-scale-it-systems/e-codex/dps>
D3.2 e-CODEX Implementation v1.0.docx

“Judicial Authority” can be mapped to “Justice Core – Authority”

 <h2>Justice Core - Authority</h2>		
<u>Court</u>	1..1	The court where the case has been filed.
Name	1..1	Name of the authority
<u>Address</u>	1..1	The address of the authority.
Postal Code	0..1	.
<u>Address Line</u>	0..1	.
Description	1..1	The unstructured address or a part thereof
Line Number	1..1	The order of the line in the unstructured address
Usage	1..1	Codelist how the specified address is used
<u>City</u>	0..1	.
Name	1..1	The name of the city
<u>Country</u>	1..1	A nation or state of the address
Country Code	0..1	Code according to ISO 3166-1
Description	0..1	Name of the country if not in iso code list.

“Person” or “Contact” details can be mapped to “Justice Core – Involved Party”

 <h2>Justice Core – Involved Party</h2>		
<u>Involved Party</u>	2..20	A person named as a party to an action or suit. For some purposes, a party who will really litigate the controversy, as distinguished from one defaulting in the action or consenting to judgment. .
<u>Person</u>	0..1	Natural person (individual)
Family Name	1..1	A family name is usually shared by members of a family. This attribute also carries prefixes or suffixes which are part of the Family Name, e.g. "de Boer", "van de Putte", "von und zu Orlow". Multiple family names, such as are commonly found in Hispanic countries, are recorded in the single Family Name field so that, for example, Miguel de Cervantes Saavedra's Family Name would be recorded as "Cervantes Saavedra."
Given Name	1..1	A given name, or multiple given names, are the denominator(s) that identify an individual within a family. These are given to a person by his or her parents at birth or may be legally recognised as 'given names' through a formal process. All given names are ordered in one field so that, for example, the Given Name for Johan Sebastian Bach is 'Johan Sebastian.'
Occupation	0..1	The occupation of a person
<u>Legal Person</u>	0..1	Legal person (organisation or company)
Name	1..1	The name of a company or organisation
<u>Communication</u>	0..3	Specification of possible means of communication with this party (e.g. telephone, mobile phone, e-mail, fax).
Channel	1..1	The code specifying the channel or manner in which a communication can be made, such as telephone or email..
Complete Number	0..1	A text string of characters that make up the complete number for this communication..
URI	0..1	The unique identifier of the Uniform Resource Identifier (URI) for this communication, such as a web or an email address.
<u>Involvement</u>	1..1	Specification of the role of the party
Role	1..*	"Role of the party involved in a court case (specified by code-list ""Role""). Note: The possible roles of a party depend on the type of court proceeding (case type). Typical roles of parties in civil cases are e.g. claimant, defendant, representative of claimant/defendant. Typical roles of parties in criminal cases are e.g. offender, victim, witness, representative of offender/victim. "
<u>Identification</u>	0..1	A(Optional) Identification code for this party (e.g. person number, number from the company register)
Number	1..1	An identifier assigned to a natural person or a legal person in some registry.
<u>Address</u>	1..2	Address of the party

4. Conclusions

This document has presented three different approaches, how an e-CODEX implementation could support the setup of cross-border judicial videoconferences. It has further provided a proposed data structure for the VC form taking into account e-CODEX standards and practises.

The decision for a specific approach (or analysis of possible further approaches) must be left to the owner of e-CODEX. Still, in terms of reusability of data, option 3 (business attachment) seems to be the least favourable. In terms of the integration into existing business workflows, it seems that option 2 (embedded into use cases) is more suitable than option 1 (“separate use case”). SimpliVi Deliverable D2.2 (see annex) provides a thorough analysis and reasoning for the integration into existing use cases.

5. Annex

5.1. Annex I: Business Workflow



D2.2 Business
collaboration v1.1.pdf

5.2. Annex II: SimpliVi Website

The SimpliVi project has published its main contents and especially the publicly available Deliverables at:

www.simplivi.eu