FEDeRATED Technical components

The template hereunder provides the technical components to be incorporated into platforms allowing a FEDeRATED infrastructure provision to function.[1]

No	Techn. component	Definition	Description
1	**Access Point**	The ICT component integrating the endpoint of an individual end-user to its back-office ICT system. An Access Point can implement functionality like data transformation, communication, etc.	These are the ICT components that support the interaction between back-office systems of end-users and their connector or platform. They may consist of graphical user interfaces only, especially for SMEs.
2	**Certification Authority**	Any ICT component that can authenticate the identity of an end-user	The authentication of the identity of users are managed by organizations called certification authorities, based on open standards.
3	**Chain modeling toolset**	A subset of the configuration toolset to develop views on the models, including a business transaction hierarchy for modelling supply- and logistics chains.	This toolset supports enterprises in modeling and implementation of the FEDeRATED concepts in their supply and logistics chains, for instance by constructing transaction hierarchies (see the example in section 2.2).
4	**Component**	A component providing peer-to-peer data sharing services according a particular Quality of Service	Organizations may decide that they don't want to use a specific platform but implement the required functionality themselves. This is via a connector, see for instance the International Data Space Association architecture or CEF FENIX.
5	**Configuration toolset**	The set interoperable ICT components that support an end-user in specifying its data requirements, connect to a platform (or install a connector), and configure its Access Point.	When computer systems need to interact with other systems, engineers need to ensure that the connections are compatible. These connections are configured by special tools.
6	**Connector**	*Synonym:* Single Entry Point, Unique Resource Identifier	See also 4
7	**Endpoint**	The unique identification ("address") on a platform or connector enabling an end-user to share data with any other end-user having an endpoint.	An endpoint could be a URI (Uniform Resource Identifier) or a web address. It identifies an organization with respect to the FEDeRATED network of platforms. One organization may have more than one endpoint.
8	**End-user**	Any organization (public or private) operating in supply and logistics e.g., LSPs, RUs, IMs, carriers, shippers, Food Safety Authority, customs authority.	This refers to organizations that operate the ICT systems, either from a business – or authority perspective.

[1] *Source: FEDeRATED Milestone 2 report, Interim MasterPlan, page 38, paragraph 6.1*

No	Techn. component	Definition	Description
9	**Federated platform**	The set of interoperable platforms of different providers, each with its own business model, providing logistics enterprises and authorities with a single entry point for data sharing to support their business.	Looking at all the connectors and platforms that need to be connected as whole, is holistically referred to as the Federated Platform. It does not refer to a single system, but the combination of all of them together.
10	**Identity Provider**	Any ICT component that can provide a certified Identity to an end-user	Computer systems cannot "see" who they are interacting with and therefore Identity Providers are needed to certify that a user really is who they say they are through the use of a digital identity.
11	**Maintenance toolset**	A subset of the configuration toolset to manage and maintain views on the models.	Data sharing requirements can change over time due to regulatory or market developments, requiring adaptation of connectors and platforms. This requires maintenance tools to simplify the work.
12	**Modeling toolset**	The subset of the configuration toolset to develop a semantic model and business process choreographies as a basis for generating platform services.	Semantics are the language of logistics and transport. They have many vocabularies that are related, and these words and their relationships are recorded in semantic models. Similarly, the interaction sequencing between organizations can be modelled by a choreography. Such a choreography identifies the various interactions, leading to data requirements of for instance a booking or a transport order.
13	**Platform**	Any ICT system providing (a subset of) the platform services to two or more end-users in a federative platform.	A platform is another name for a computer system that provides services to companies and their end-users, the so-called platform services
		Synonym: Node	
14	**Platform Services component**	A component of the federative platform providing one or more platform services.	Platforms can provide parts of the platform services. Each of those platform services is supported by a component of the platform.
		Synonym: Registry component providing Registration – and Connection Services; Visibility component providing Visibility Services, etc	
15	**Registry component**	An ICT component of the federative platform supporting the Registration – and Connection Services.	In a network of platforms, organizations need to know where to find others. Therefore, a registration component needs to be available, identifying the endpoints of an end-users, with reference to a platform if that endpoint is implemented by a platform. This only implies that particular data can be accessed via this endpoint, which may include a reference to data stored elsewhere.
		Synonym: Registration Services component	

No	Techn. component	Definition	Description
16	**Storage component**	An ICT component of the federative platform or linked to it for (temporarily) data storage by providing data storage as Common API.	Data will always be stored somewhere, either by one (or more) of the platforms or by one (or more) of its end-users.
		Synonym: Blockchain node or -cluster	