


NetService

Title	NetService: Blockchain for university certificates
Subtitle	**Needed**
Description	<p>The aim of the pilot is to address the possibility for public institutions to issue valid official documents in a digital form, on the blockchain. The proposed architecture is based on a permissioned blockchain (Ethereum Proof of Authority, or similar). This blockchain can be obtained, at project level and possibly within a commercial version of the product, via an authentication service from a Certification Authority of the EUTSL list, or the AAI service provided by EOSC-hub project such as Check-In or B2Access. The pilot will look to demonstrate that the solution can be deployed on a federated infrastructure such as the EOSC along with cloud service support.</p>
Challenge	<p>Original records can be manipulated and falsified by officials or black-market forgers. It is also not difficult in most cases to create realistic looking replicas of official documents which contain false information.</p> <p>The major challenge is that a paper-based document is used to transmit some kind of information and identity to the bearer. Because these documents are easy to forge or can be based on real, but stolen documents, they convey significant privileges to the bearer with only a small risk of exposure.</p> <p>In a blockchain-based system, paper-based documents are replaced with digital documents on an immutable ledger. The immutable nature of the blockchain means that these digital documents are impossible to duplicate or forge because there is only a unique, single record.</p>
Work Plan	<p>In the context of the EOSC-hub project, EOSC DIH partners and Net Service will carry out the following tasks:</p> <ul style="list-style-type: none"> • Integrate the blockchain solution with EOSC-hub AAI. • Deploy a solution using EOSC cloud services via selection of multiple providers to showcase federated capabilities. • Prepare a demonstrator of capabilities for wider promotion. • Publish the service in EOSC Marketplace.
Achievements	-- To be completed when the project is finished
How they used EOSC-hub services	-- To be completed when the project is finished
The value proposal of the pilot	-- To be completed when the project is finished
How EOSC-hub helped	-- To be completed when the project is finished
Logos	

Private section:

- [NetService \(Private\)](#)