Introducing the European Blockchain Services Infrastructure (EBSI)

Blockchain technology has enormous potential to enhance the way that citizens, governments and businesses interact, by enhancing trust between entities and improving the efficiency of operations.

The European Blockchain Services Infrastructure (EBSI) is a joint initiative from the European Commission and the European Blockchain Partnership (EBP) to deliver EU-wide cross-border public services using blockchain technology. The EBSI will be materialised as a network of distributed nodes across Europe (the blockchain), leveraging an increasing number of applications focused on specific use cases. In 2020, EBSI will become a CEF Building Block, providing reusable software, specifications and services to support adoption by EU institutions and European public administrations.

‘Blockchain is a great opportunity for Europe and Member States to rethink their information systems, to promote user trust and the protection of personal data, to help create new business opportunities and to establish new areas of leadership, benefiting citizens, public services and companies’.

Mariya Gabriel, Commissioner for Digital Economy and Society
The 2019 EBSI use cases

Four use cases have been selected for 2019. For each use case, a Member State led and composed user group has been established. These user groups aim to deliver a prototype application on the EBSI blockchain by early 2020. A new set of use cases will be selected by the EBP Policy Group for 2020.

**Notarisation**
Leveraging the power of blockchain to create trusted digital audit trails, automate compliance checks in time-sensitive processes and prove data integrity.

**Diplomas**
Giving control back to citizens when managing their education credentials; significantly reducing verification costs and improving authenticity trust.

**European Self-Sovereign Identity**
Implementing a generic Self-Sovereign Identity capability, allowing users to create and control their own identity across borders without relying on centralised authorities.

**Trusted Data Sharing**
Leveraging blockchain technology to securely share data (e.g. IOSS VAT identification numbers and import one-stop-shop) amongst customs and tax authorities in the EU.
How does it work?

The Member States will operate EBSI nodes at national level. These nodes will be able to create and broadcast transactions that will update the ledger. The architecture of each node will be composed of two main layers:

- A layer of **Use Case-specific** APIs developed to enable business applications to interface with the node.
- An **infrastructure layer** with capabilities common to all Use Cases. This layer will include generic capabilities and connectivity to Blockchain networks.

Who will benefit from EBSI?

- **EU Citizens**
  
  Transact across borders with public services more securely than ever before.

- **EU Institutions**
  
  Simplify administrative processes, enable regulatory compliance and increase efficiency in cross-border public services.

- **National Administrations**
  
  Simplify administrative processes, increase efficiency and instill trust in citizens.
Where did EBSI come from?

**Tallinn declaration on eGovernment**

In 2017, Member States and EFTA countries signed the Tallinn declaration on eGovernment, outlining the importance of efficient and secure digital public services in order to achieve the full potential of the Digital Single Market.

**European Blockchain Partnership declaration**

In 2018, 27 EU Member States, Norway and Lichtenstein signed a declaration creating the European Blockchain Partnership (EBP) with the ambition to provide digital public services matching the required level of digital security and maturity of today’s society.

**European Blockchain Services Infrastructure**

On 14 February 2019, the European Commission published the 2019 Telecommunications Work Programme of the Connecting Europe Facility (CEF), creating initial funding conditions for EBSI.

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**What milestones are paving the way towards EBSI?**

**What services will be provided by the EBSI building block?**

Once the CEF Building Block is launched, several services will be provided by the European Commission, to be known as the ‘Core Service Platform’ of EBSI. If you want to know more about how we define the services for Building Blocks, read more about our Service Offering Canvas Playbook.

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**Core Services**

Creation and maintenance of the open technical specifications of the EBSI.

**Enabling Services**

Provision of services that facilitate the adoption of the EBSI such as:

- Deployment packages
- Testing services
- Training services

**Enhancing Services**

Services that further accelerate the adoption of EBSI by enhancing the experience of the Public Administrations using it. They mainly relate to stakeholder on-boarding and follow-up, including:

- Deployment packages
- Testing services
- Training services
Get in touch with the EBP for any questions!

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