



bConnect in MERCOSUR

Blockchain in the AEO Programme and other potential uses

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AFIP – Deputy Directorate General of ICT Systems
(DI DECS - DE DES1 - SDG SIT - DI PROD)



bConnect

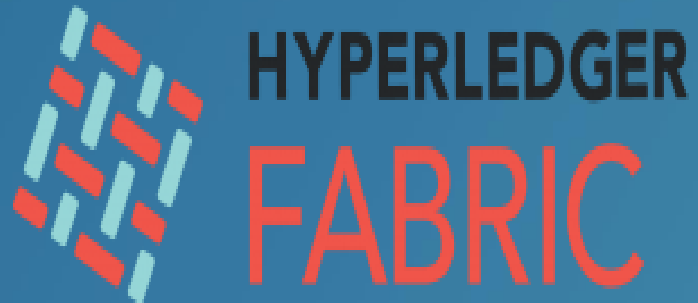
The blockchain interconnecting the services of Argentina, Brazil, Bolivia, Paraguay and Uruguay.

In November 2020 a testing net and a production net were implemented.



Technical Concepts

Made with the blockchain open source project Hyperledger Fabric from Linux Foundation



- 2016 - v0.6.x
- 2017 - v1.0.0
- 2019 - v1.4.x LTS ← **bConnect**
- 2020 - v2.2.x LTS
- 2021 - v2.4.x



First Use Case - Authorized Economic Operators (AEO)

This replaces a process that was previously done through spreadsheets sent by email

INFORMACIÓN SOBRE EL OPERADOR / MasterDataParty					Direcciones del Operador / Address					
Identificador del país emisor del identificador tributario / Identificationissuing CountryCode	Identificador Tributario del Operador / ID	Nombre del Operador / Name	Nombre fantasía / ShortName	Función en la cadena logística /RolCode	Tipo de dirección / TypeCode 1: Dirección Postal/Postal Address, 2: Dirección Fiscal/Fiscal Address, 3: Dirección física/Physical Address	Dirección /Line	Pais/ CountryCode	Departamento o Estado/ CountrySubdivisionCode	Ciudad / City	Cód Post PostalCode
ARGENTINA	30000000001	Trigo Arentina S.A.		IMPORTADOR/EXPORTADOR	1	Domicilio A 1234	ARGENTINA	BUENOS AIRES	SAUN NICOLAS	11
ARGENTINA	30111111119	Juan Gonzalez Y CIA S.A.		IMPORTADOR/EXPORTADOR	1	Domicilio B 5678	ARGENTINA	CIUDAD DE BUENOS AIRES	CIUDAD DE BUENOS AIRES	22
ARGENTINA	30222222221	ARGENTINA S.A.		IMPORTADOR/EXPORTADOR	1	Domicilio C 2589	ARGENTINA	CIUDAD DE BUENOS AIRES	CIUDAD DE BUENOS AIRES	33
ARGENTINA	33333333339	NewYork S.A.		IMPORTADOR/EXPORTADOR	1	Domicilio D 9512	ARGENTINA	BUENOS AIRES	MAR DEL PLATA	44



AEO - Blockchain

DEFINED FIELDS

- Company ID.
- Company Role (IM,EX,CA,FW,WH,TR,CB).
- Address.
- Type of Address (Individual, Fiscal or Postal).
- Country.
- Province/State.
- Accreditation and status.
- Type of Accreditation (Security/Compliance/Full).



AEO - Blockchain

DEFINED FIELDS

- Incoming and outgoing data in JSON format.
- Set of methods for AddModifyDelete - AEO.
- Fabric allows the use of general languages.
- Smart contract of bConnect in typescript.

ADMINISTRATION PROTOCOL

- Joint administration.
- Decisions taken by consensus.
- No incentive policies.
- Single repository of sources (Paraguay).



AEO - Blockchain

Design in JSON format and modelling based on the WCO Data Model taking “INTERGOV” as Base Information Package (BIP)

Example:

```
{ "IdentificationIssuingCountryCode": "BR", "ID": "00000000000191",  
  "Name": "EMPRESA TAL", "RoleCode": "EX", "Address": { "Line":  
    "AVENIDA TAL; 1111", "City": "CIDADE TAL", "PostcodeID":  
    "10000000" }, "AdditionalDocument": { "ID": "123456",  
    "EffectiveDateTime": "2019-12-30", "StatusCode": "C" } }
```



AEO – Current state

- Progress made on the Project during the pandemic.
- PY/UY are finalizing the testing stage.
- AR/BR are already in production.
- Expand the exchange to the rest of the Members.



Next challenges

SINTIA - Sistema de INformatización de Tránsitos Internacionales Aduaneros
(International Customs Transits Informatization System)

REFERENCE TABLES

- Customs, Operational posts, Cities, Packaging. ✓
- Fields subject to exchange. ✓
- Definition of the Smart Contract.
- Development and implementation.

EXCHANGE

- Under assessment.
- Countries signatories to ATIT - Agreement on International Land Transport – also participate (Chile, Peru).



Blockchain Team

- Sebastián Perrone • Alejandro Gimenez
- Fabián Varisco • Gonzalo Bellino
- Marcelo Fiotto

Thank You!!!

