bConnect in MERCOSUR
Blockchain in the AEO Programme and other potential uses

October 2022

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

<table>
<thead>
<tr>
<th>Información sobre el Operador / MasterDataParty</th>
<th>Direcciones del Operador / Address</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identificador del país emisor del</strong></td>
<td><strong>Tipo de dirección /</strong></td>
</tr>
<tr>
<td><strong>Identificador Tributario del Operador / ID</strong></td>
<td><strong>Dirección /Line</strong></td>
</tr>
<tr>
<td><strong>Nombre del Operador / Name</strong></td>
<td><strong>País/ CountryCode</strong></td>
</tr>
<tr>
<td><strong>Nombre fantasia / ShortName</strong></td>
<td><strong>Departamento o Estado/ CountrySubdivisionCode</strong></td>
</tr>
<tr>
<td><strong>Función en la cadena logística /Role</strong></td>
<td><strong>Ciudad / City</strong></td>
</tr>
<tr>
<td><strong>CountryCode</strong></td>
<td><strong>Código Postal</strong></td>
</tr>
</tbody>
</table>

| ARGENTINA | 30000000001 | Trigo Argentina S.A. | IMPORTADOR/EXPORTADOR | 1 | Domicilio A 1234 | ARGENTINA | BUENOS AIRES | SAÚN NICOLAS | 11 |
| ARGENTINA | 30111111119 | Intermundo 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 5689 | ARGENTINA | CIUDAD DE BUENOS AIRES | CIUDAD DE BUENOS AIRES | 33 |
| ARGENTINA | 33333333339 | NewYork S.A. | IMPORTADOR/EXPORTADOR | 1 | Domicilio D 555 | 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:

```json
{
  "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

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Thank You!!!