Facilitating crossborder data sharing

CADENA

Solution to facilitate the implementation of MRA-AEO with **Blockchain**

IDB Vision for 2025 in Latin America and the Caribbean

regional integration

strengthening value chains

digital economy

To bring innovation to the LAC region and create capacity with new technologies

Facilitating cross border data exchange between Customs

CADENA & LACCHAIN

CADENA

8 Customs

(Bolivia, Guatemala, Costa Rica, Colombia, Chile Ecuador, Mexico, Peru)

14 MRAs

1120

AEO Certified firms

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Blockchain added value for CADENA

Peer 2 Peer crossborder data exchange

Security

Automation via smart contracts

Real Time

Immutability
Traceability
Transparency

Not one single point of failure / Back up shared system

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LACCHAIN

CADENA's Blockchain Infrastructure

	Permissionless blockchain	Permissioned blockchain	LACChain (public-permissioned)
Public (open to everyone)	✓	✗	✓
Decentralized	✓	✗	✓
Transparent	✓	✗	✓
Low transaction fees	✗	✓	✓
Not cryptocurrency-based	✗	✓	✓
Not anonymous (thus can be regulated)	✗	✓	✓
Privacy enabled	✗	✓	✓

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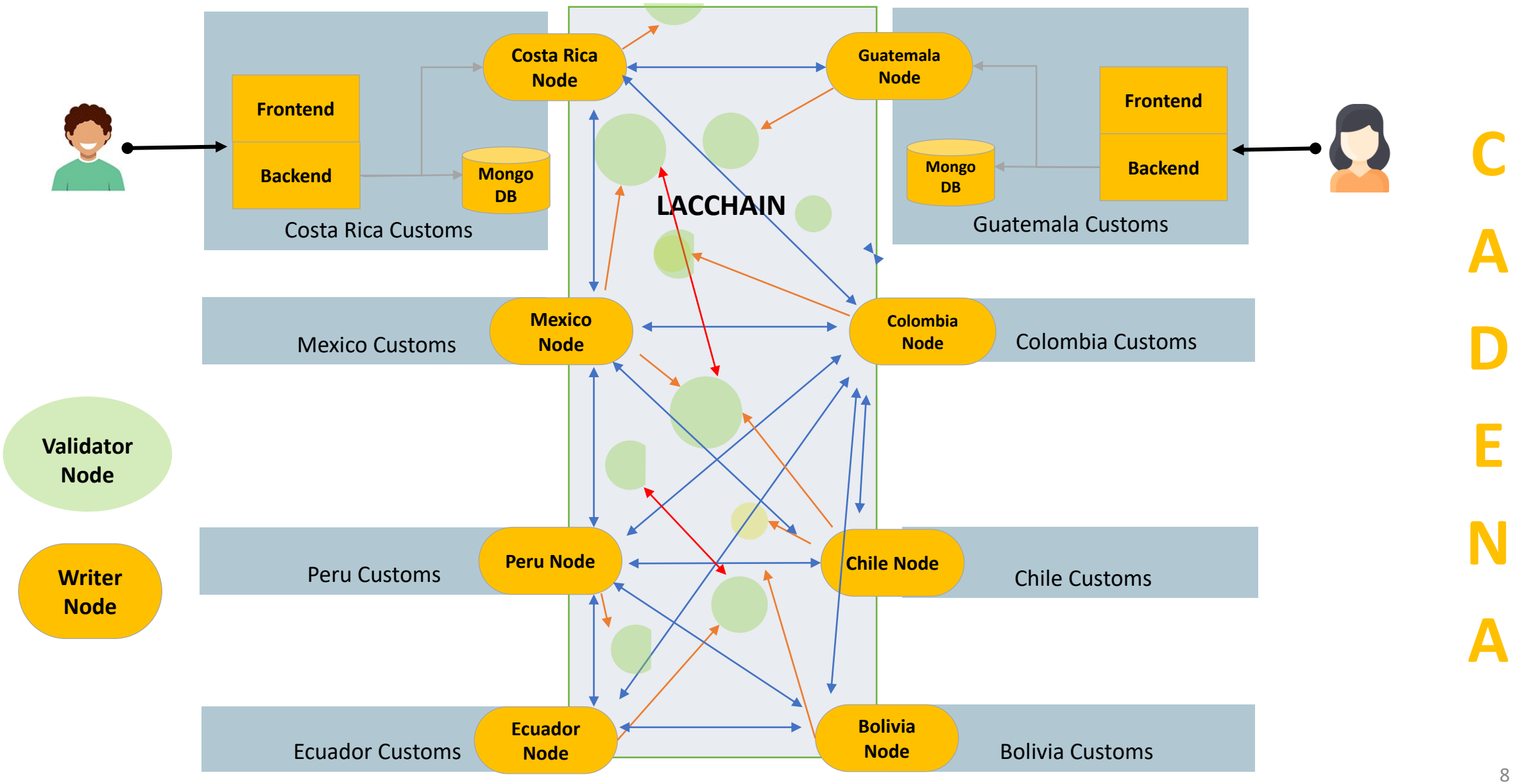
Frontend
Backend
Mongo DB
Costa Rica Customs
Costa Rica Node
Guatemala Node
Frontend
Backend
Mongo DB
Guatemala Customs
LACCHAIN
Mexico Customs
Mexico Node
Colombia Node
Colombia Customs
Validator Node
Writer Node
Peru Customs
Peru Node
Chile Node
Chile Customs
Ecuador Customs
Ecuador Node
Bolivia Node
Bolivia Customs
C A D E N A

The importance of Standards

CADENA

- SAFE Framework – Data Exchange under MRA
- WCO Data Model –Data Sets and Formats
- Trader Identification Number (TIN) - Firm identification
- Not a proprietary product, built with open-source code

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LACCHAIN

- Base Technology: Open-Source protocol Hyperledger Besu
- Standard ISO TC307 WG5 TS23635
- W3C Identifier Standard Decentralized Identifiers DID
- W3C Credential Standard Verifiable Credentials VC
- Aligned with EU 2016/679 (GDPR) for privacy and data protection
- LACChain´s architecture recognized by ITU-T FG DLT Technical Specification D3

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LAACHAIN, ITU Recognition

International Telecommunication Union

ITU-T Technical Specification

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

(1 AUG 2019)

ITU-T Focus Group on Application of
Distributed Ledger Technology
(FG DLT)

Technical Specification FG DLT D3.1

Distributed ledger technology reference architecture

Table A.1: Overview of architecture mapping to existing DLT platforms

Attachment	Platform	Contributor	Organization	Reviewer	Organization
I	**Alastria (Quorum version)**	Jesus Ruiz	Alastria	Paulo Brizola	Multiledgers
II	**Ardor**	Skylar Hurwitz	Jelurida	Xiaofeng Chen	Qulian
III	**Bitcoin**	Robin Renwick	Independent	Lisa Tan	Economics Design
IV	**Corda**	Paulo Brizola	Multiledgers	Ruifeng Hu	Huawei
V	**EOS**	Ning Hu	Ontology	Giovanni Cambronero	ANCE
VI	**Ethereum**	Suzana Maranhão	BNDES	Ning Hu	Ontology
VII	**Fabric**	Ruifeng Hu	Huawei	Paulo Brizola	Multiledgers
VIII	**Hyperchain**	Xiaofeng Chen	Qulian	Baixue Yang	CAICT
IX	**LACChain**	Marcos Allende	IADB	Ismael Arribas	Kunfud
X	**Masterchain**	Alexander Chuburkov	Russian Fintech Association	Lisa Tan	Economics Design
XI	**Monero**	Robin Renwick	Independent	Lisa Tan	Economics Design
XII	**Ontology**	Ning Hu	Ontology	Baixue Yang	CAICT
XIII	**Quorum**	Ismael Arribas / Jose Nogueira	Kunfud/BNDES	Paulo Brizola	Multiledgers
XIV	**Sawtooth**	Ruifeng Hu	Huawei	Xiaofeng Chen	Qulian

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Why Standards are important for CADENA ?

SCALABILITY

- To expand to **other Customs** with which MRAs are signed
- To include **other funcionalities** and border processes

INTEGRATION

- Connectivity wih internal systems (e.g. **Risk management) through APIs**
- Integration with **other entities and government agencies**

INTEROPERABILITY

- **Interoperability** with other blockchains

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Thank you!

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