

GoChain

Enterprise Blockchain Manager

Developing, deploying and
managing blockchain networks



GoLedger



Who are we?



GoLedger

We are a company with more than **7 years** in the field.

Our mission is to **enable digital transformation** via **Blockchain solutions**.

We are general members of

DLF
DECENTRALIZED TRUST

Some of our projects



Samuel Venzi

- CTO @ GoLedger
- Working with Hyperledger Fabric since 2018
- Working with Besu since 2021
- Certified Hyperledger Fabric Administrator (now extinct)
- Hyperledger Fabric Certified Practitioner and Besu Certified Professional
- Exam Developer for HFCP e BCP
- Maintainer of CC-Tools
- Mentor for LFX projects involving CC-Tools



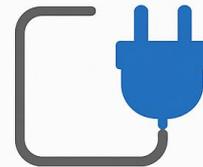
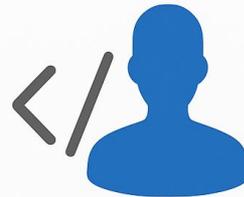
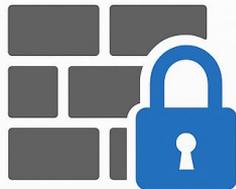
<https://www.linkedin.com/in/venzi/>
<https://github.com/samuelsenzi>





Barriers to Enterprise Adoption

1. Complexity of network deployment
 - a. Manual setup of nodes, certificates, policies, contracts
2. Infrastructure and governance challenges
 - a. Multi-org coordination, infrastructure provisioning, visibility
3. Shortage of skilled developers
 - a. Deep understanding of internals
4. Integration with existing systems
 - a. Legacy systems, APIs and ERPs





What is GoChain?

GoChain is an enterprise-grade blockchain manager designed to simplify and accelerate the deployment, operation, and governance of private blockchain networks.

Key Capabilities

- Deploy private blockchain networks based on Hyperledger Fabric or Besu
- Manage organizations and scale your network as it grows
- Ensure compliance through built-in governance and policy controls
- Simplify administration with an intuitive no-code interface

Hyperledger Fabric

- The **most widely used** open-source **permissioned blockchain** framework in the world.
- An IBM project and **one of the first major projects** to join the Hyperledger Foundation, now **LF Decentralized Trust**.
- **Private and corporate** networks, with their own **architecture** and model.
- **Shared governance** model.



LF
DECENTRALIZED TRUST



Besu

- **Open-source client** for Ethereum, written in Java.
 - EVM-compatible.
- A ConsenSys project that is now part of the **LF Decentralized Trust** projects.
- Can be used in **public or private** networks.



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Pillars of GoChain

Organizations

- **Collaborative** management.
- **Node** and **API** creation.
- **CA identity** management (Fabric)
- Account (EOA) management (Besu)
- Node **monitoring**
- Join **multiple organizations**

Business Groups

- **Collaborative** governance.
- **Invite organizations** to the group.
- **Approval policy.**
- Create **multiple** channels/private networks.
- Join **multiple** Groups.
- **Chaincode/smart contract** lifecycle.

Extra Tools

- Provision **cloud infrastructure.**
- Develop **no-code smart contracts.**
- Use **custom code.**
- **Integrate via API.**



Real-World Use Case: Notarchain

Notarchain is a Hyperledger Fabric-based network serving as the backbone for the digital service **e-Notariado**, maintained by Colégio Notarial do Brasil.

- **Exclusive for Notary offices** in Brazil
- Notary offices maintain their own **nodes**
- Registers digital **documents, signatures** in the network
- Enables digital transfers of **real estate deeds** with smart-contracts

Built with GoChain.





Notarchain: Smart Escritura

Modernizing Real Estate Contracts with Blockchain and Notarial Trust

Smart Escritura is a public deed recorded by a notary that includes a digital layer for managing the fulfillment—or breach—of contractual obligations, implemented on the **Notarchain** blockchain.

- A preliminary **real estate contract** is **notarized and digitally structured**
- **Payment terms** are **tracked** through the Smart Escritura platform
- Automatic confirmation when everything is paid, or start of cancellation if payments fail
- Real-time interaction between buyer, seller, and notary



Real-World Use Case: Notarchain

The screenshot displays the Notarchain explorer interface. The browser address bar shows `explorer.notarchain.org.br`. The page title is "Notarchain".

Transação
Criado em 03 de fevereiro 2025, 15:38 UTC-03:00
Canal `signatures-channel`
[Ver Bloco](#) →

Detalhes
ID de Transação
`46a53bc9fc3921...94f020573b9660`
Criador
CNBMSP
Assinatura do Payload
`MEUCIQC0QtJmzS...J5hrNLYtUkQhQ=`

[Exportar Conteúdo](#)

Conteúdo da Transação

Nome do Chaincode	Versão do Chaincode	Método
<code>signatures</code>	<code>1.8</code>	<code>storeSignature</code>

Endossos
CNBMSP [Ver assinatura](#)

Modificações à Blockchain

Namespace: `_lifecycle`

Namespace: `signatures`

Write Set

```
sha2_51234c0cc78a2ce62fda5bb18af2e6814272e1285b554b98b74483fd78f8790b92915aaebc8c06c72fd32797e1268f3475d1e416a9c2667575c52e7395672d78bda
```

```
{  
  "sigHash": {  
    "hexValue":  
      "34c0cc78a2ce62fda5bb18af2e6814272e1285b554b98b74483fd78f8790b92915aaebc8c06c72fd32797e1268f3475d1e416a9c2667575c52e7395672d78bda",  
    "algorithm": "SHA2_512"  
  },  
  "ocsp": [],  
  "crls": [  
    {  
      "hash": {  
        "hexValue":  
          "122f0033c1e4171b5d2bab2fc0119352fEE17AFF6804f93bd1fB99903000995038236f76d683A6c444AA6c653A8335CE8899037f94B4EE85E46DED6D8FA0C7",  
        "algorithm": "SHA2_512"  
      },  
      "algorithm": "SHA2_512"  
    }  
  ]  
}
```



Real-World Use Case: Energy Efficiency Label

The **Procel Label** is a Brazilian energy efficiency label awarded to products, buildings, and equipment that meet high performance standards in energy savings, helping consumers identify the most efficient options on the market.

- Labels are awarded with a **QR Code backed by the approval process** recorded on **blockchain**
- **Transparency** for customers when buying products
- **Fairness** to manufacturers that are awarded the label

Built with GoChain.





Real-World Use Case: Energy Efficiency Label

The screenshot shows a web browser window with the URL `smartseloprocel.validacao.procelinfo.com.br/s/produtos/revisar/produto:89f07dba-20bf-5f4a-a92d-55dd4cf0af6f`. The page title is "Revisar Produto". The main content area displays "PLATAFORMA Selo Procel" and "Acompanhar". A modal window titled "Selo" is open, showing a red energy efficiency label. The label features a lightbulb with a smiley face, the text "ESTE PRODUTO CONSUME MENOS ENERGIA", and the Procel logo with the slogan "PROCEL ENERGIA É DINHEIRO. NÃO DESPERDIÇA." and a QR code. The label also includes the ENBPar logo. Below the label are "fechar" and "download" buttons.

PLATAFORMA
Selo Procel

Acompanhar

QRCode Emissão Selo
Ver arquivo

Dados gerais

Modelo
CONGELADOR TECH

Categoria
Congeladores

Status atual
Selo Emitido

Propriedades do produto

FORNECEDOR
FABRICANTE1

ELECTROMAX





How can we create blockchains in GoChain?

The GoChain platform is composed of 4 environments:

- **GoFabric** for managing Hyperledger Fabric
- **GoBesu** for managing Besu
- **GoInfra** for managing and provisioning infrastructure
- **Builder** for creating smart-contracts and chaincodes



Demo



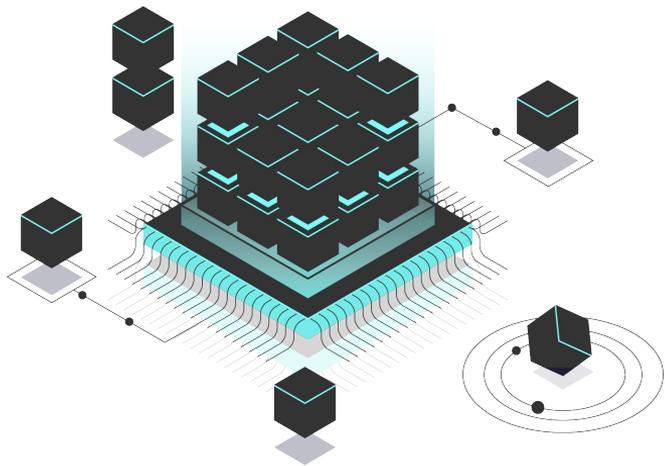
For more information

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Learn more about GoChain at:

- <https://goledger.io/en/gochain-en/>



Thank you!