SOVERI

SIM 3.0

Sovereign Project Management on the Internet Computer

Our Path to Data Sovereignty

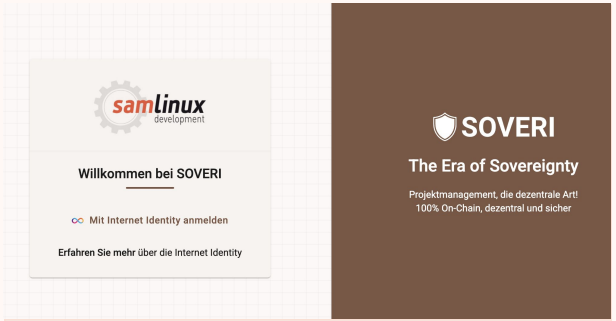
samlinux development

INTERNET COMPUTER

SIM 1 to SIM 3.0

SIM (centralised)

- LAMP stack
- Centralised hosting
- Manual operations
- Vendor dependency
- Web2 architecture
- PHP



SIM 3.0 (decentralised)

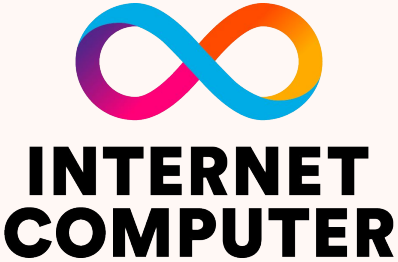
- Built on ICP canisters
- Sovereign infrastructure
- End-to-end decentralisation
- Integrated persistence
- Web3 architecture
- Angular/IC

SIM was redesigned to operate on sovereign infrastructure using the Internet Computer.

https://www.kwf.at/foerderemblem

What is the Internet Computer?

“The Internet Computer is a sovereign frontier cloud where security is built into the network running apps, services, and systems end-to-end on the network: frontend, data, and backend logic.”



Developed by the DFINITY Foundation, R&D since 2016, launched in 2021.

Three Core Properties

- **Tamperproof** - Apps run inside the network's protocol, not on a server. Computation and data are protected by math, not firewalls. The infrastructure operates as a decentralised public blockchain platform.
- **Fault-tolerant (Unstoppable)** - Computation and data are replicated across independent nodes. Individual node failures are invisible to hosted apps.
- **Sovereign** - Your cloud is a compute configuration, not a machine. No vendor lock-in, no single point of control.

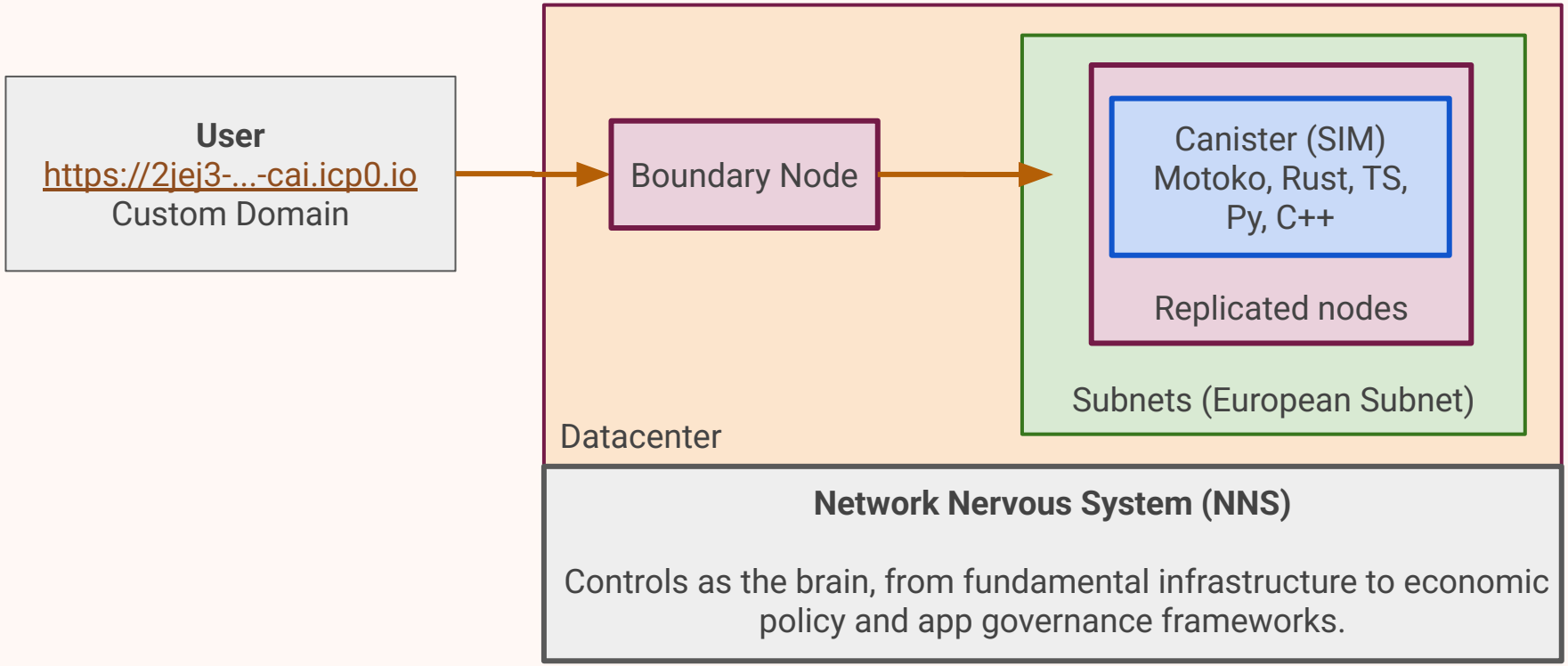
The Internet Computer at Scale

- 2015 project start, 2021 mainnet launch
- 49 independent subnets across 39 countries
- 673 node machines
- 20 boundary nodes
- 104 independent node providers at 100 data centers
- Internet identity, password-free authentication
- Links:

  internetcomputer.org | dashboard.internetcomputer.org | id.ai/about | dfinity.org/

A globally distributed sovereign cloud infrastructure already running in production.

The Infrastructure Behind SIM 3.0



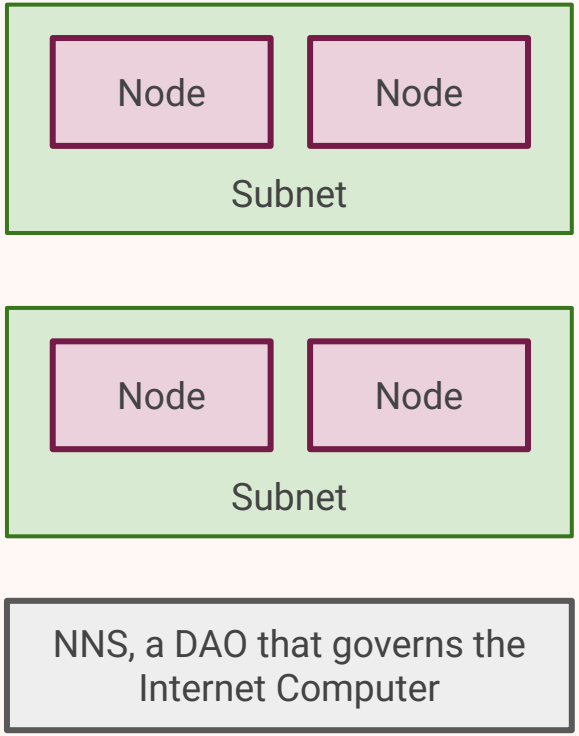
The Problems Addressed

- Traditional cloud relies on centralised providers (AWS, Google, etc.)
- Single points of failure, censorship risk, and admin control
- Vendor lock-in
- Data residency concerns
- Compliance pressure, especially for European countries (GDPR/NIS2)

ICP (Internet Computer Protocol) removes the need for a cloud provider entirely and reduces operational complexity and infrastructure administration overhead.

How It Works: Subnets & Nodes

- Applications run across independent infrastructure providers (~50 subnets, each with 13 - 34 independent nodes)
- Different types of subnets like Application, European or System
- No single cloud provider controls the system
- Infrastructure governed by protocol (NNS) instead of vendors
- Fast transaction finality for update in seconds (1-2), read request 200 ms



Canisters: The Building Blocks

- Apps are deployed as canisters: bundles of WebAssembly **code** + persistent **state** in one unit
- Persistent memory built-in, **no database** needed
- Can serve web pages over HTTPS, store gigabytes of data, call external APIs, and sign transactions on other chains
- The application pays for compute resources in cycles - not the end user (1 GB ~12 €/year)

Sovereign Identity. No passwords. No tracking.

- **ICP's native authentication system**, users sign in with passkeys, biometrics, or security keys; no passwords ever stored or remembered
- **OpenID support**, users can also authenticate via Google, Apple, or Microsoft accounts
- **One identity, many apps,** each app receives a unique principal per frontend origin, preventing cross-app tracking and correlation
- **Delegation-based sessions**, after login, a temporary delegation key signs canister calls on the user's behalf; no device touch needed on every interaction
- Runs as a **system canister** on ICP, available at https://id.ai

How to Get Started

- **No code** - Caffeine.ai - build by chatting with AI
- **Online** - ICP Ninja - browser-based IDE, no setup required
- **SDK locally** - download the icp CLI and build against a local replica

caffeine

ICP NINJA

```
npm install -g @icp-sdk/icp-cli
@icp-sdk/ic-wasm
```

Why This Matters

- Europe needs more sovereign digital infrastructure.
- Data sovereignty is becoming a strategic requirement.
- SIM 3.0 demonstrates that real business applications can already run end-to-end on sovereign infrastructure.
- The transition from Web2 to sovereign computing has already started.

Sovereignty is no longer theoretical, it is operational.

Get in Touch

Roland BOLE, Bakk. MSc
samlinux development

9020 Klagenfurt a. W.
Austria
samlinux.at
linkedin.com/in/samlinux

ICP ALLIANCE MEMBER

samlinux development