

virt8ra

Funded by the  IPCEI-CIS



IPCEI-CIS Virt8ra: the European, sovereign stack for virtualization

Deploying an **AI Copilot Service** on a **Federated Sovereign Cloud**

June 9th, 2026



www.8ra.com

tnc26



IPCEI Cloud

Say 'hello' to the largest **open source project** in European history! 🙌

- ★ **1,200 million EUR in State Aid + 1,400 million EUR in private funds.**
- ★ **100+ European companies from 12 Member States.**



Commission approves up to €1.2 billion support by 7 Member States for an IPCEI on **Next Generation Cloud Infrastructure and Services (IPCEI CIS)**

Workstream 1 Cloud-Edge Continuum Infrastructure	Workstream 2 Cloud-Edge Capabilities	Workstream 3 Advanced smart data processing tools and services	Workstream 4 Advanced Applications
Deutsche Telekom	Atos	4iG	Siemens
Telefónica España	Orange	E-Group ICT Software	Fincantieri
	SAP	Tiscali Italia	Engineering Ingegneria Informatica
	Reply	CloudFerro	
	TIM		
	Oktawave		
	Atende Industries		
	OpenNebula Systems		
	Arsys Internet		
	Leaseweb Global		

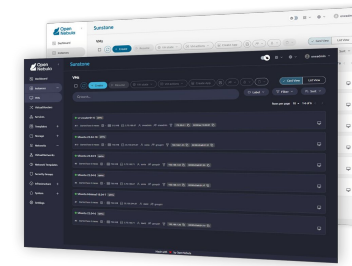
OpenNebula Systems – *a unique open source company*



- HQ in **Madrid** (Spain), with offices in Brussels (BE), Brno (CZ) & USA.
- The only European open source **IaaS** solution, born in **2008**.
- A success story emerged from **EU** innovation programs.
- Chairing the Cloud/Edge WG of the **European Alliance for Industrial Data, Edge and Cloud**.
- Chairing the new €3B **IPCEI Cloud**.

What Is OpenNebula?

An Open Infrastructure, Virtualization, and Cloud Management Platform -
Established In 2010



Kubernetes Management Layer (PaaS - K8saaS)

- Kubernetes orchestration & lifecycle management
- Automated scaling and resource optimization
- Multi-cluster coordination and policy control
- Logical multi-tenancy for workloads

Cloud Orchestration Layer (IaaS - VMaaS / GPUaaS)

- Physical multi-tenancy and provisioning
- Self-service, elasticity, and automation
- Service catalog and lifecycle management

Virtual Infrastructure Management Layer

- VM, network, and storage orchestration
- Resource monitoring and scheduling
- Optimized infrastructure utilization

AI Platforms and Frameworks (SaaS)



Kubernetes Clusters (PaaS)



Virtual Machines (IaaS)

Cloud Service & Provisioning Management
Virtualized Infrastructure Management (VIM)



Data center



Public cloud



Edge

Virt8ra Cluster @ IPCEI-CIS Workstream 2

What is the Virt8ra Cluster?

- A collaborative **integration ecosystem** of individual projects contributing to building the **IPCEI-CIS software stack for virtualization** based on European open source technologies.

What is the Virt8ra Testbed?

- A **multi-provider, validation cloud deployment** designed to demonstrate next-generation capabilities such as scalability, interoperability, and workload portability in a live environment.

Features

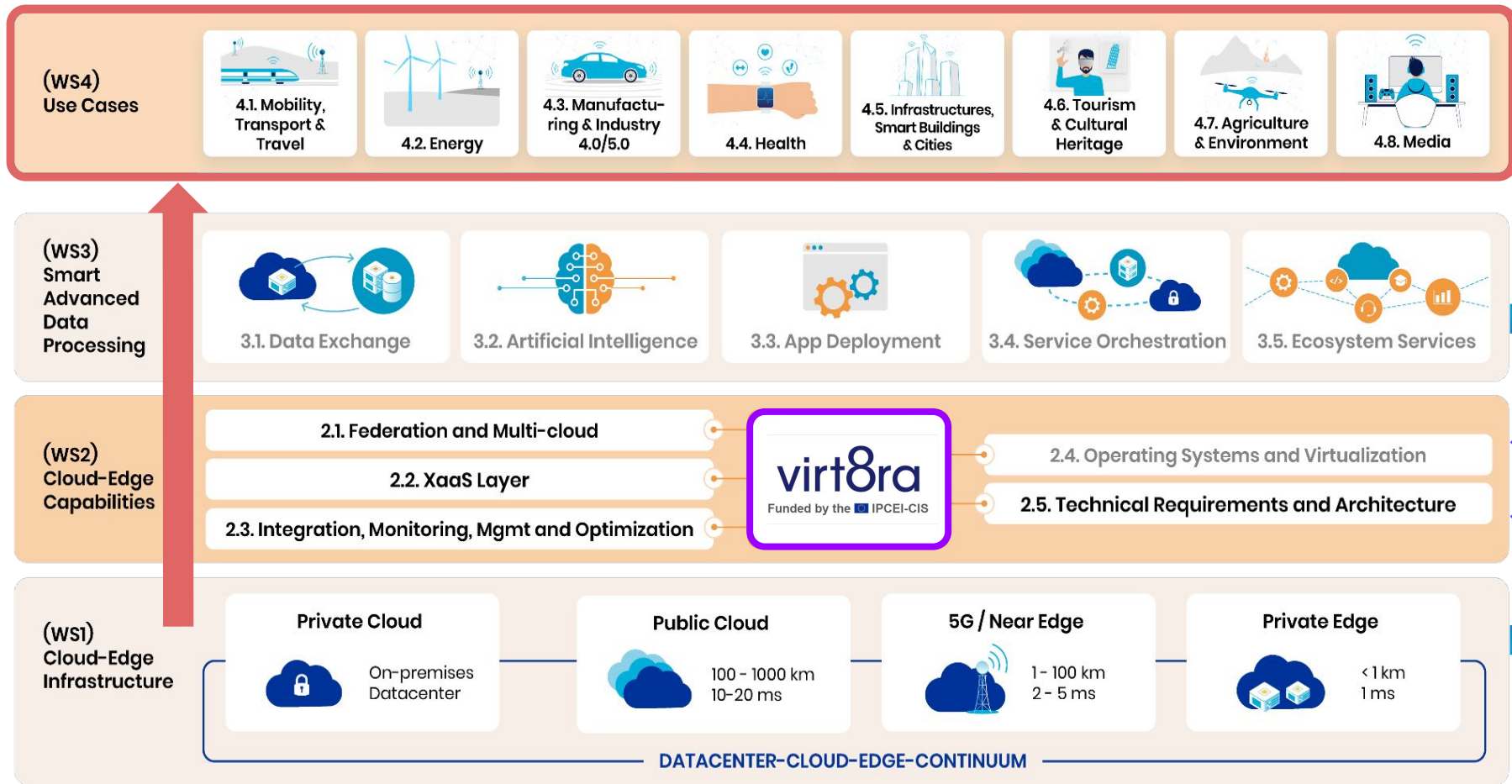
- ✓ **Federated cloud-edge infrastructure** across multiple EU member states.
- ✓ **Bare-metal resources** from EU cloud providers.
- ✓ **Single unified control plane** with provider-neutral orchestration.
- ✓ **European open source stack**: no vendor lock-in, no hyperscaler dependency.

Capabilities

- ✓ **Federated Marketplace**: publish once, deploy globally on any availability zone.
- ✓ **Multi-tenant isolation** via Virtual Data Centers (VDCs)
- ✓ Cross-site networking and workload **portability**
- ✓ **Sovereignty controls** and **geopatriation** by design.

Virt8ra Cluster @ IPCEI-CIS Workstream 2

Promoting the integration of new cloud-edge capabilities & “continuum-native” applications



Virt8ra Integration Ecosystem

Apps/Services



Extensions

Northbound extension



Southbound extension



Infra Providers



Virt8ra Testbed 2026



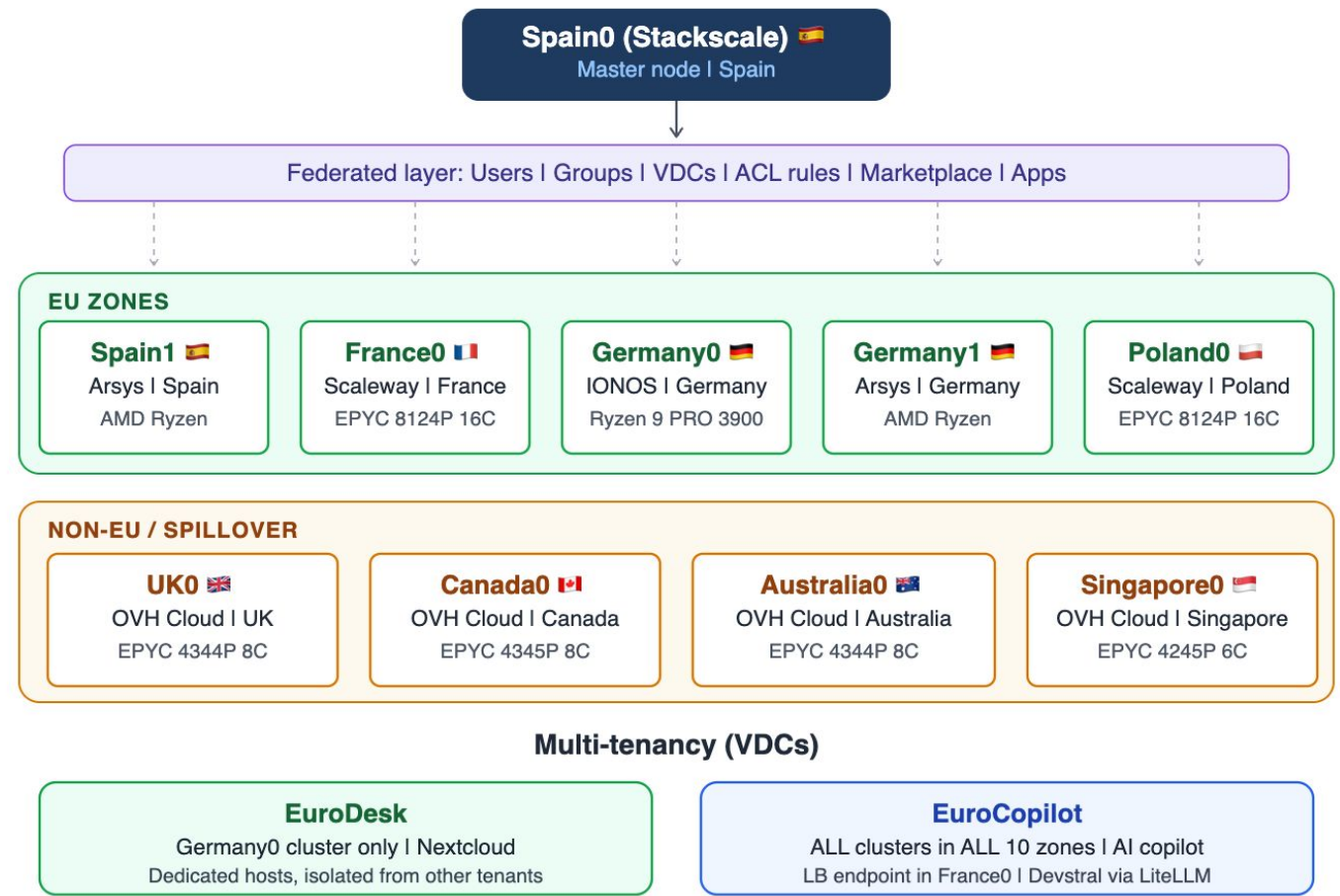
[DEMO] Prototype of European Virtual Hyperscaler

This Federated Cloud-Edge Infrastructure offers advantages beyond individual EU cloud providers:

- **Neutrality:** Full provider neutrality, avoiding vendor lock-in.
- **Scalability:** Aggregates capacity across Europe, scaling beyond single provider limits.
- **Resilience and Risk Reduction:** Mitigates operational/strategic risk by avoiding single-provider/location dependence.
- **Pan-European Reach:** On-demand access to a unique, highly distributed EU-wide infrastructure.
- **Automation:** Infrastructure nodes provisioned automatically and on demand.
- **Sovereignty:** An end-to-end sovereign cloud stack on EU bare-metal, meeting all European governance, security, and regulatory requirements.

Virt8ra federation architecture

10 availability zones | 5 providers | 8 countries



Bare-metal CPU | No GPU | 128 GB RAM per host | NVMe | Data never leaves the zone

[DEMO] Prototype of European Virtual Hyperscaler

Multi-tenancy by design, with **Virtual Data Centers (VDCs)** isolating customers across a **shared federated cloud-edge infrastructure**.

EuroDesk (Customer #1)



Office365 Alternative

- **Application:** Nextcloud All-in-One
- **Zones:** Germany0
- **Isolation:** Dedicated hosts
- **Scope:** EU-only data residency

EuroCopilot (Customer #2)



Copilot Alternative

- **Application:** EuroCopilot appliance
- **Zones:** ALL clusters, ALL 10 zones
- **LB Endpoint:** France0 (Scaleway)
- **Scope:** Global distributed inference



Sovereignty enforcement by design: VDC boundaries enforce data residency per tenant.

[DEMO] Deploying a Sovereign AI Copilot Service

EuroCopilot: How to deploy at scale European SLMs

Model Devstral Small 2
Runs **Devstral Small 2** (24B parameters) by **Mistral AI**, fully open-source (Apache 2.0).

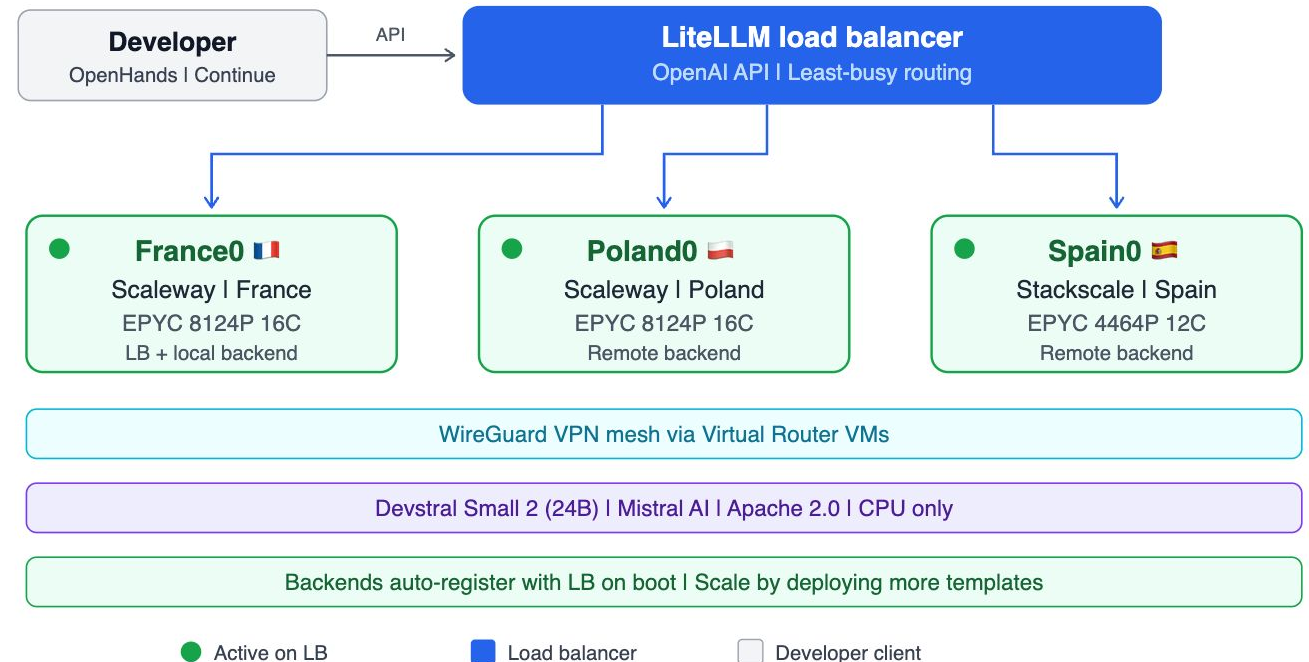
Inference **100% CPU via llama.cpp**
100% CPU inference via llama.cpp (**no GPU required**).

API **OpenAI-compatible**
OpenAI-compatible API with **TLS** and Bearer token auth.

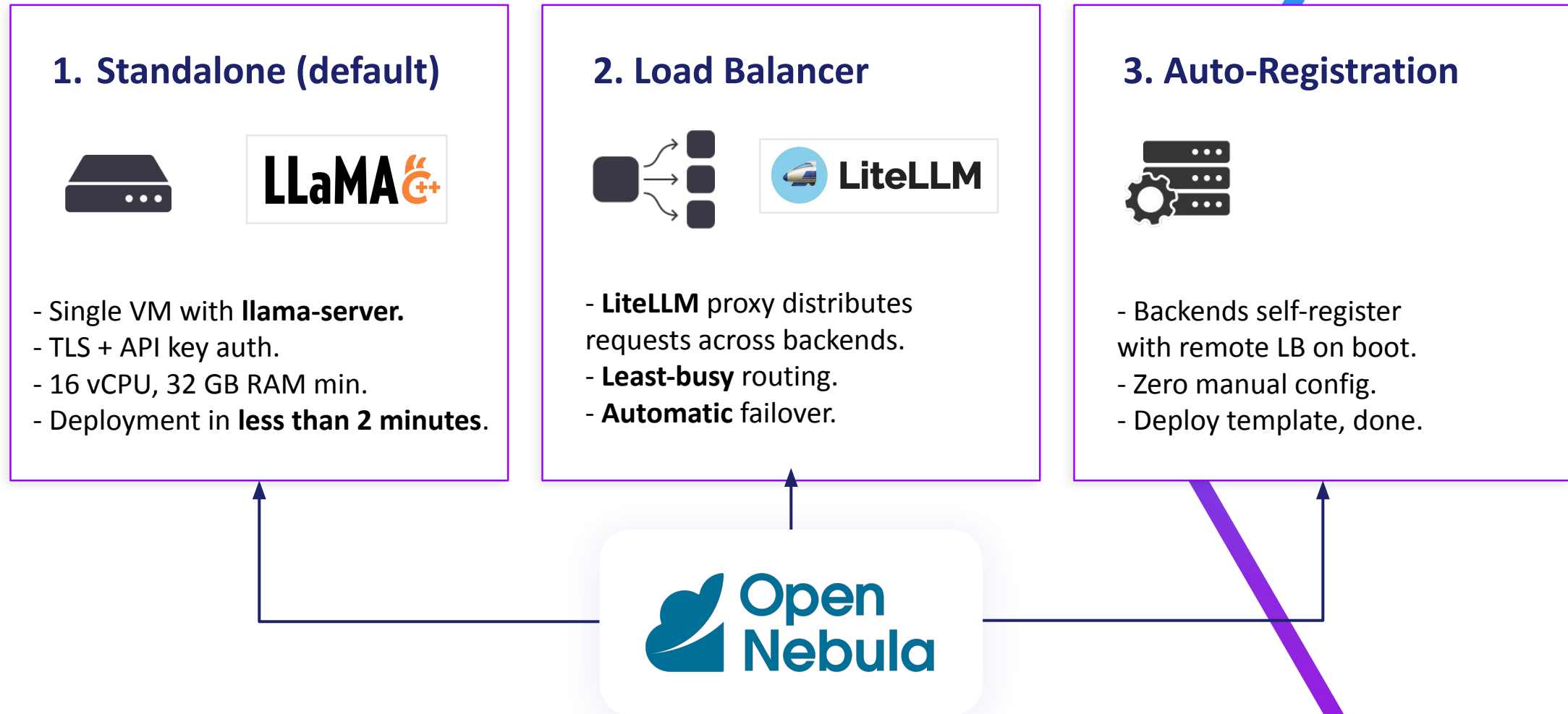
Clients **OpenHands, Continue**
Works with Continue (VSCode), aider, OpenHands, or any **OpenAI-compatible** coding tool.

EuroCopilot: sovereign AI coding platform

Distributed CPU inference | Open-source | No GPU

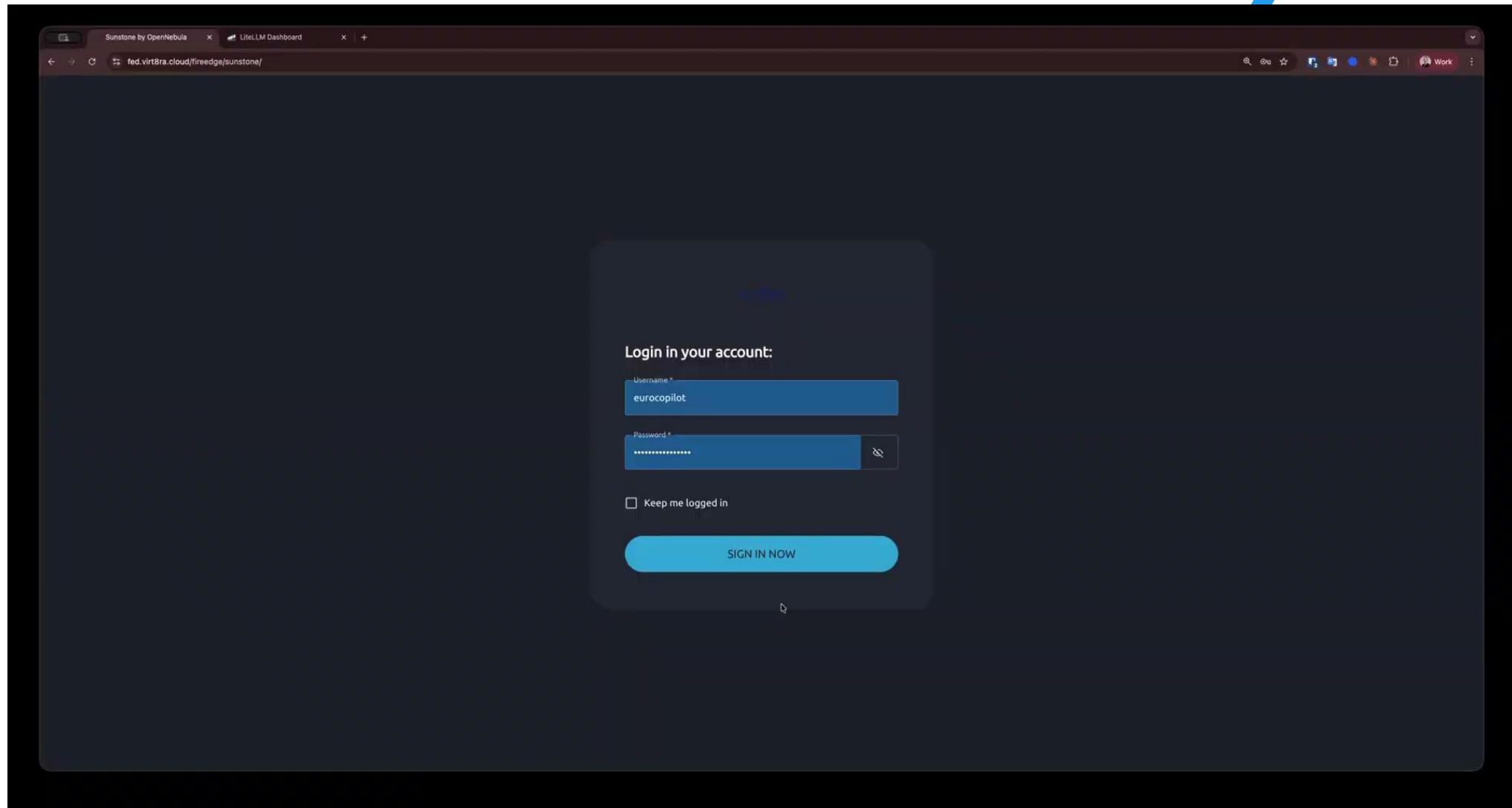


[DEMO] Deploying a Sovereign AI Copilot Service



One-click deployment from the **Virt8ra Marketplace**

[DEMO] Deploying a Sovereign AI Copilot Service



Key Numbers

10

Availability Zones

Across **8** countries

5

EU Cloud Providers 

Stackscale, Arsys, IONOS,
Scaleway, OVHcloud

24B

Model Parameters

Devstral Small 2
Mistral AI, Apache 2.0

128

GB RAM per Host

Bare-metal AMD EPYC
and Ryzen CPUs

256K

Context Window

Token context for
long coding sessions (SLM)

100%

Agentic Open-Source Stack

llama.cpp + LiteLLM + OpenNebula



IPCEI-CIS

Next-Generation European Platform for the Datacenter-Cloud-Edge Continuum

Initiative funded by the *Spanish Ministry for Digital Transformation and Civil Service* through the **ONEnextgen Project: Next-Generation European Platform for the Datacenter-Cloud-Edge Continuum** (UNICO IPCEI-2023-003) and co-funded by the European Union's NextGenerationEU instrument through the Recovery and Resilience Facility (RRF).



OpenNebula.io/IPCEI-CIS