



# AI-Native Homelab

**Private, cost-efficient MLOps you control**

What it is • Why it matters • What you get

Powered by ProxmoxMCP + Model Context Protocol

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# The Challenge

- Slow idea → experiment cycles (days, not hours)
- Unpredictable cloud costs for iteration
- Data residency/privacy constraints
- Fragmented tooling across teams

## Objective

Make experiments fast, affordable, and compliant — on your own hardware



# The Solution

## What it is

An AI-managed Proxmox platform (ProxmoxMCP + MCP)

## How it works

Agents provision test VMs per PR, run checks, and clean up

## For ML

On-demand GPU VMs; training and inference spin up only when needed

## Operations

Health checks, logs, and alerts wired into Grafana/MLflow



# Example Outcomes

**< 2 min**

VM provisioning time

**50%**

fewer manual interventions

**20%**

lower power/capacity overhead

**~5 min**

mean incident response



# Use Cases

## Private RAG

Answer docs/Q&A without sending data to cloud

## Analytics to Insight

ETL → model → Grafana dashboard in a day

## ML Experimentation

Run 10-20 safe experiments/day on fixed budget

## On-prem Inference

Latency-sensitive apps, GPU only when needed

## Governed Prototyping

Keep PII/data in-house while iterating fast





# Build an AI-Native Platform that Pays Off

- 30-90 day roadmap
- Fixed, transparent budget
- On-prem or hybrid cloud

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