



PUSHING
LIMITS

HYPER-CONVERGED INFRASTRUCTURE · KEYNOTE LAUNCH

IronFlex™

India's Own HCI — **for Every Workload**

Owned, predictable, sovereign infrastructure — from a Government ministry to a 30-person MSME.

www.polystack.tech





THE DEMAND

Three Forces, One Shift.



Economics

Cloud & licence costs have flipped the build-vs-rent maths.



Sovereign AI

AI demands owned, in-country compute that keeps data home.



Sovereignty

Data residency & Make-in-India are now non-negotiable.

ONE SHIFT — FELT FROM A MINISTRY TO A 30-PERSON MSME



OWN VS RENT

The economics just flipped

- ✓ Cloud OPEX is a **rent that never stops — and rises.**
- ✓ Owned infrastructure **amortises as an asset**, then runs on.
- ✓ The catalyst: the **Broadcom / VMware shock** forces the decision now.



AI tips it further: Owned GPU breaks even in ~11–12 months vs cloud — and sovereign AI keeps data in-country.

86%

of CIOs repatriating some workloads — a record high

–1½

the cost of equivalent cloud, run owned

\$75M

Dropbox saved over 2 yrs leaving public cloud

2.5X

GEICO's cloud bill rose after a 600-app migration

Cloud still wins for spiky, unpredictable, short-lived workloads. IronFlex is for your steady-state, predictable & sovereign estate — hybrid by design.

→ THE ANSWER



IronFlex

A COMPLETE HCI PLATFORM — BUILT
ON PROVEN OPEN FOUNDATIONS.

JOINTLY ENGINEERED

Polystack Technologies

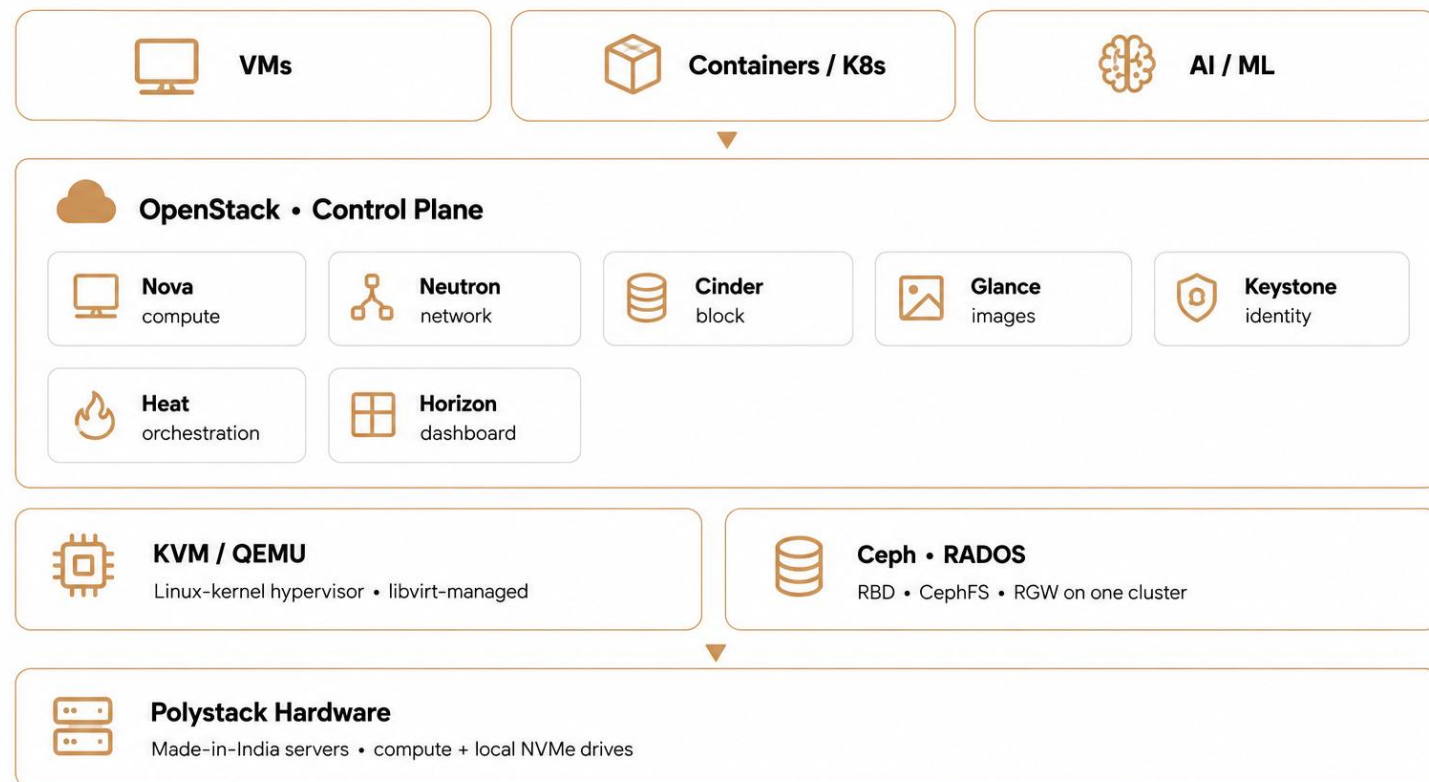
Made-in-India server platform — sovereign
hardware, integration & local support.



VM2CLOUD

Proven cloud-software stack — hyperscale-
grade compute, storage & services.

THE IRONFLEX STACK





FOR YOU

Why it Wins.



Owned Economics

Predictable INR — no per-core royalty, no forex shock. You own the asset.



Runs Every Workload

VMs, containers & AI on one system — no separate stacks.



Sovereign & Supported

Owned, maintained & supported in India — data stays in-country.



Simple by Design

One system, one pane of glass — fewer tools, less firefighting.



OVERVIEW

Everything, in **One Platform.**



COMPUTE



STORAGE



NETWORK



SECURITY



DISASTER RECOVERY



OBSERVABILITY



ORCHESTRATION / K8S



OPERATIONS & LIFECYCLE



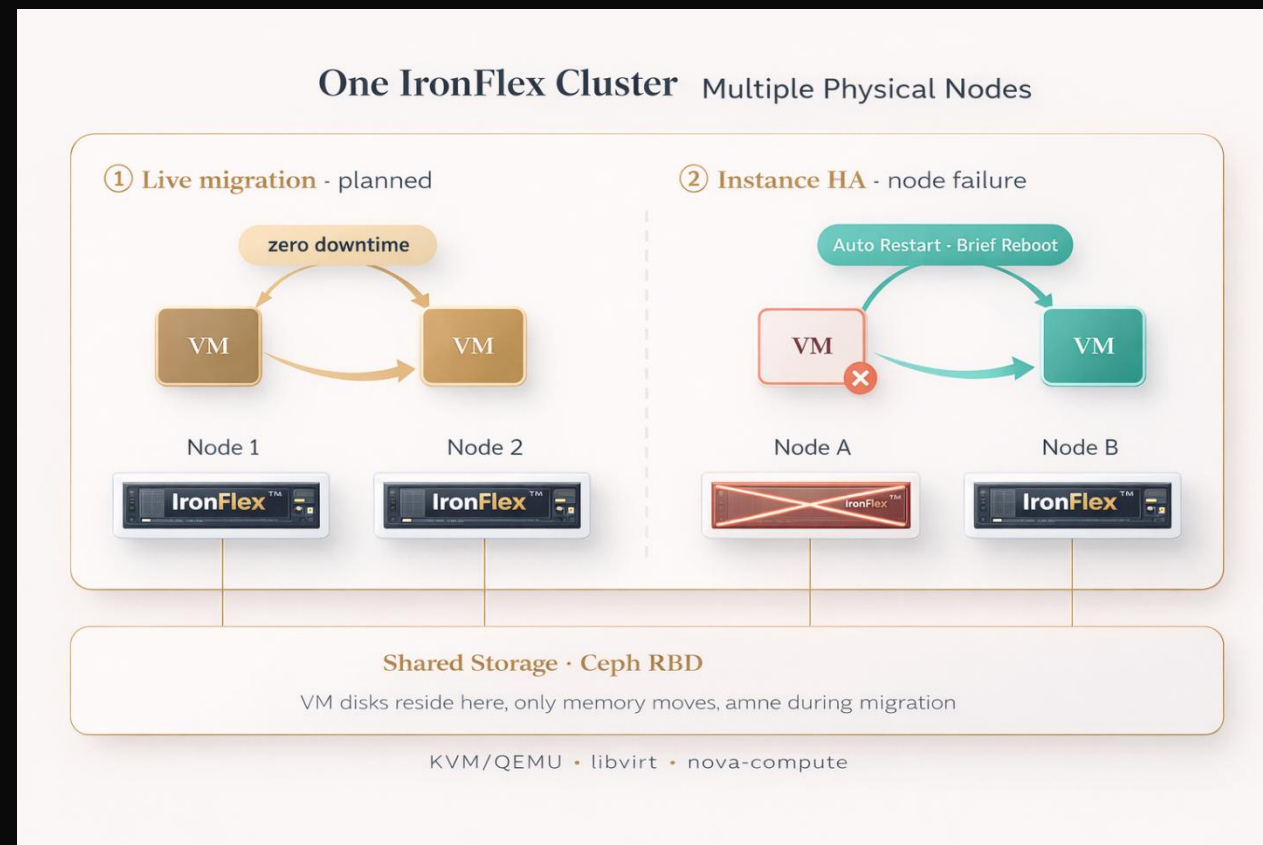
AI-READY



01 COMPUTE

Run anything. Move it live.

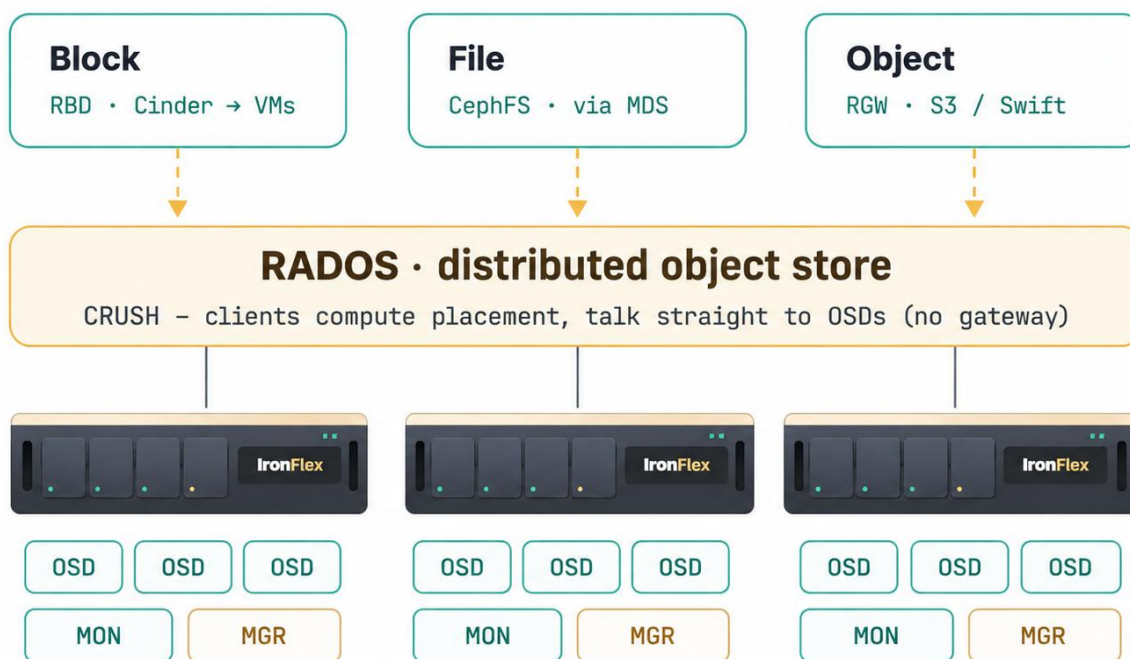
- **Any workload** — KVM/QEMU virtualization, libvirt-managed, scheduled by OpenStack Nova — any guest OS.
- **Live migration** — Move a running VM from one node to another in the same cluster — memory pre-copied, disk stays on RBD. Zero downtime.
- **Instance HA** — Node fails → Nova / Masakari auto-restarts its VMs on a surviving node (a brief reboot).





02 STORAGE

No SAN, One Ceph Pool.



OSD = one daemon per drive · MON quorum (3) keeps the cluster map

01

Block · File · Object :

One Ceph cluster replaces SAN + NAS + Object Store.

02

No Controller Bottleneck:

CRUSH places data across all OSDs - Clients talk straight to the drive.

03

Linear Scale:

Add a node → More OSDs → Capacity and Performance.



02 STORAGE

Self-Healing

- **Replication or EC:**

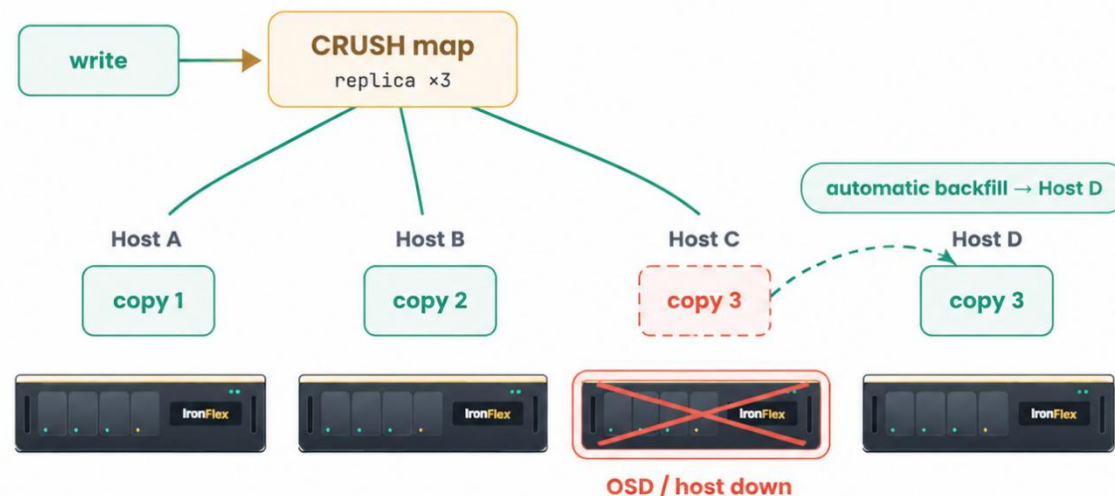
One Ceph cluster replaces SAN + NAS + Object Store.

- **Self-heals:**

Drive or node loss → copies rebuilt automatically. No RAID wait.

- **Fault Domains:**

CRUSH keeps copies apart — survive a whole rack or zone.



`min_size` keeps the pool serving I/O during recovery - no RAID rebuild window

CRUSH failure domain = host / rack · copies never share one

03 NETWORK

The Network is Software.

- **Micro-segmentation**

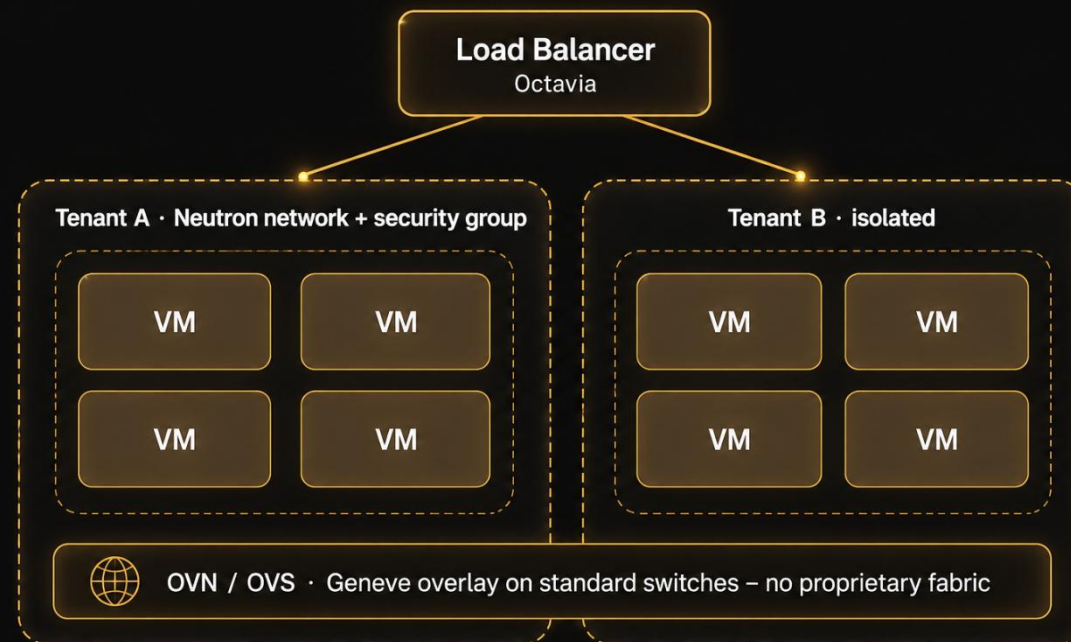
Per-tenant Neutron networks & security groups — hard isolation.

- **LB · firewall · VPN**

Octavia LBaaS, FWaaS & VPNaaS as software services.

- **No proprietary fabric**

Standard switches — no extra appliances to buy



04 SECURITY

Hardened, and Audit Ready.



Detection & response:

Intrusion detection, file-integrity & log analysis — XDR / SIEM..



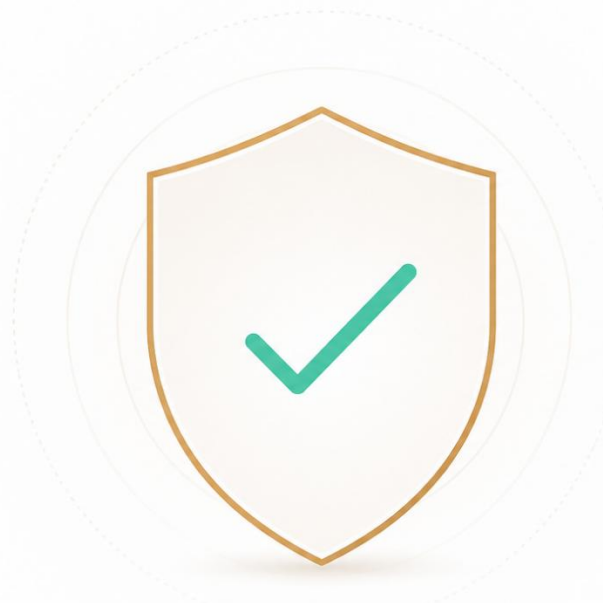
Audit-ready compliance:

Automated checks vs CIS · STIG · PCI-DSS.



Isolation & encryption:

Keystone RBAC, multi-tenancy; data encrypted at rest & in flight.



Threat detection • XDR (Wazuh)



Compliance

CIS Benchmark



STIG



PCI-DSS



automated & continuous



encrypt: LUKS at-rest • TLS in-flight

05 DISASTER RECOVERY

Survives the whole Site.

01

Async RBD mirroring

rbd-mirror replicates block images to the DR cluster — snapshot or journal-based.

02

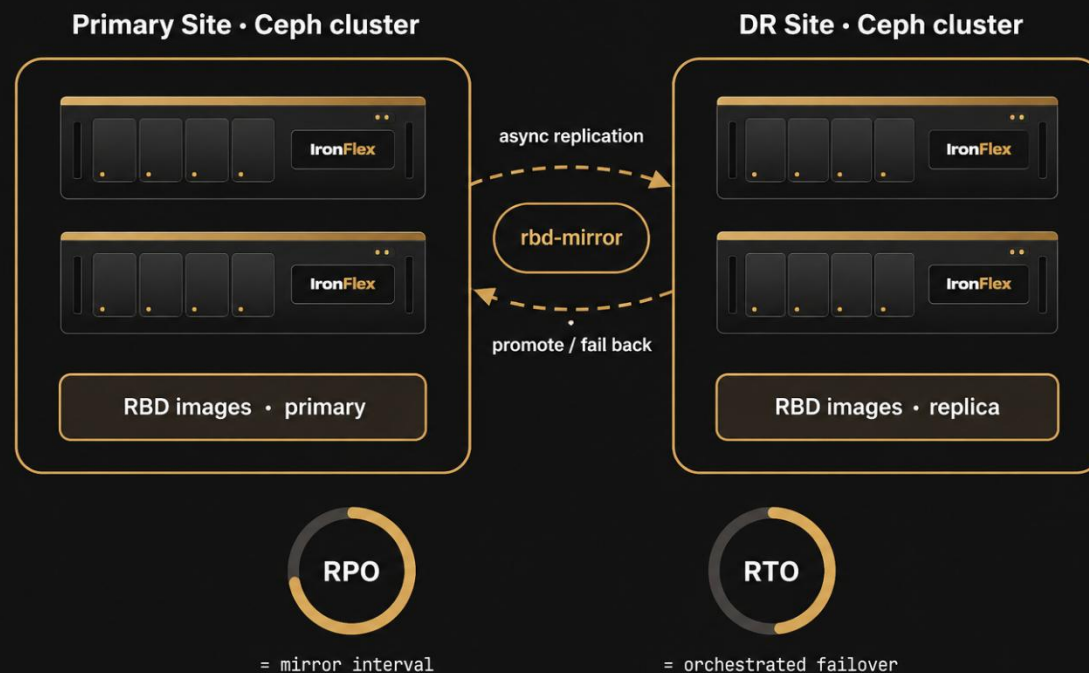
Orchestrated failover

Defined RPO / RTO, with non-disruptive DR testing.

03

Business continuity

Survive a site outage, then fail back when primary returns.



06 OBSERVABILITY

See Everything, One Pane.

- **Metrics & dashboards:**

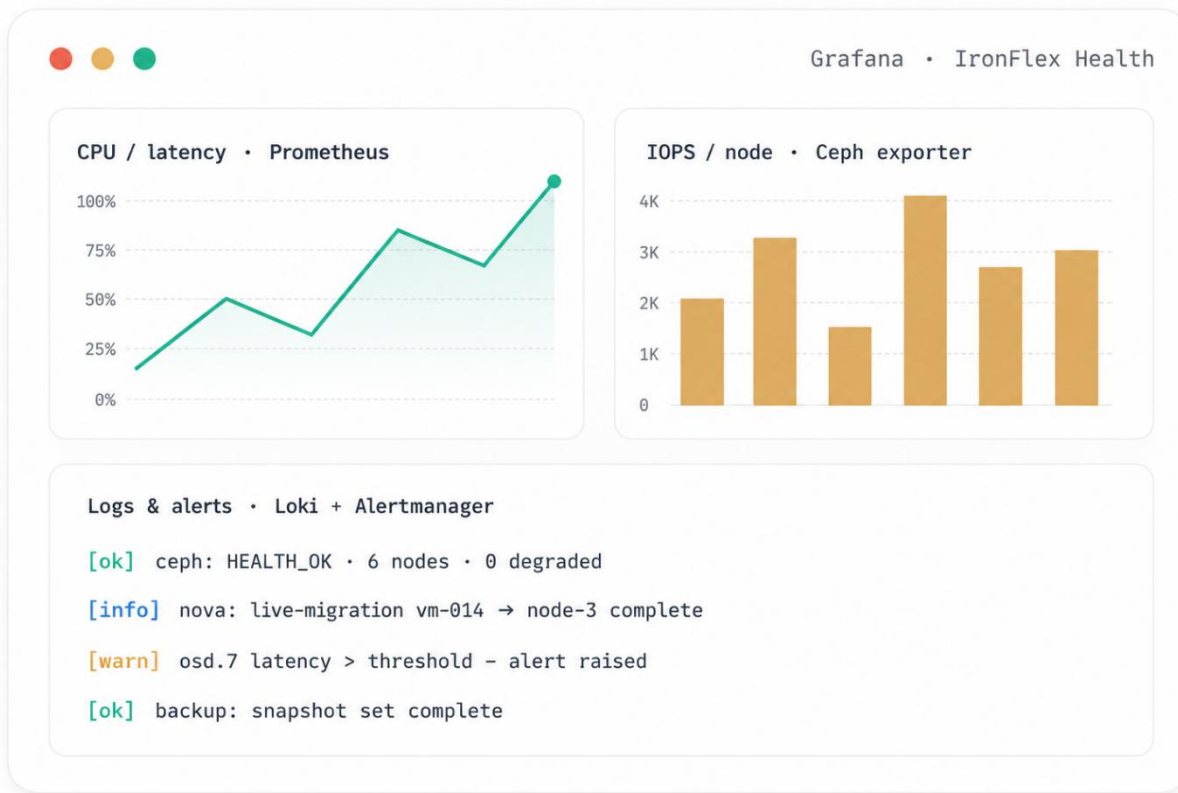
Prometheus + Grafana — hardware → Ceph → VMs → apps.

- **Centralized logs:**

Every component, searchable in one place (Loki / ELK).

- **Proactive alerts:**

Alert manager catches issues before they're incidents.



07 ORCHESTRATION

Cloud Native, Built-in.



Managed Kubernetes

Provisioned via Cluster API / Magnum — the container half of one platform.



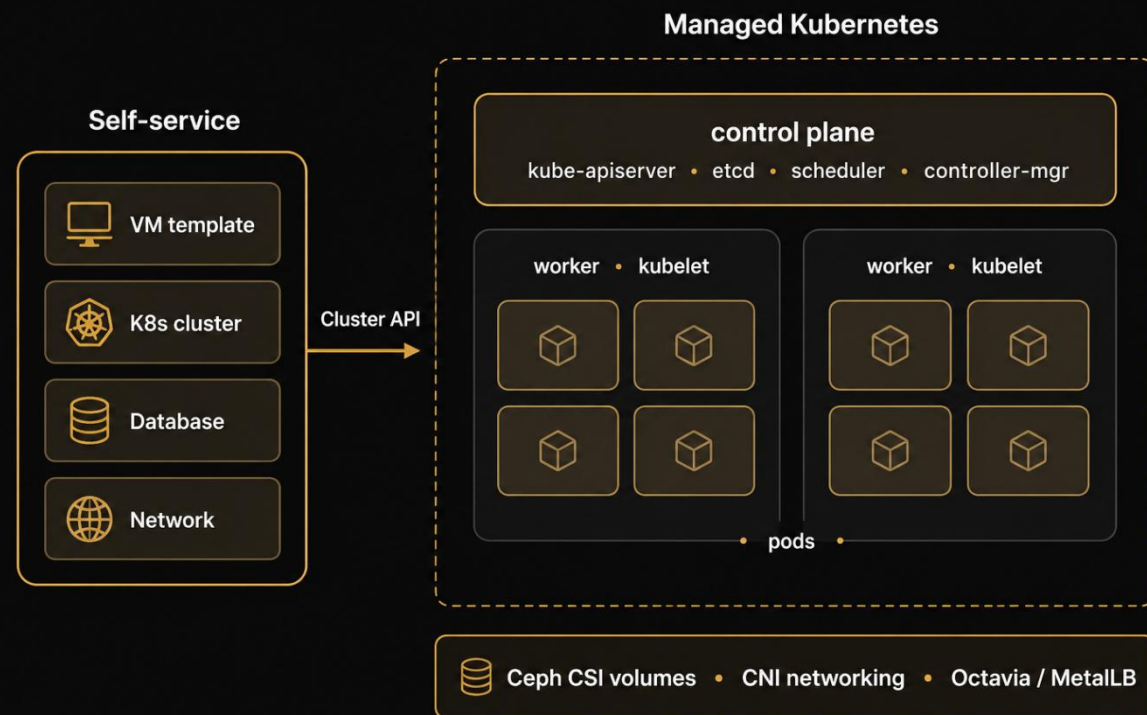
Storage & network ready

Ceph CSI volumes, CNI networking, Octavia / MetalLB ingress..



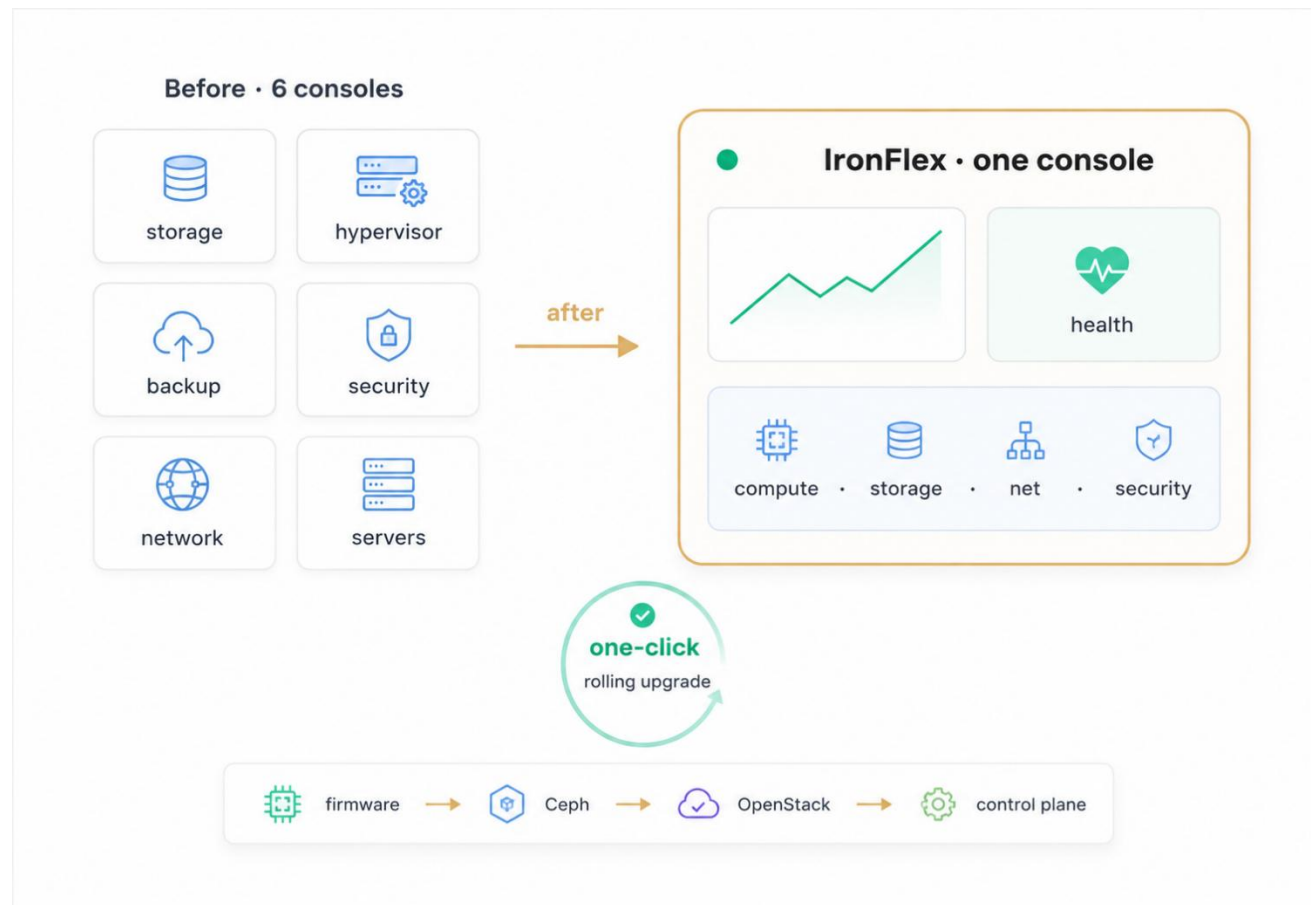
Self-service & IaC

Terraform & Ansible-driven — app teams provision in clicks, no tickets.



One pane, One Click.

- **Single pane of glass:**
One console retires six specialist tools.
- **One-click upgrades:**
Rolling, non-disruptive — firmware → control plane.
- **Day-2 handled:**
No more weekend maintenance windows.



09 AI READY

Built for AI – In INDIA.



Accelerator scheduling

GPUs as first-class resources — passthrough / vGPU + device plugin.



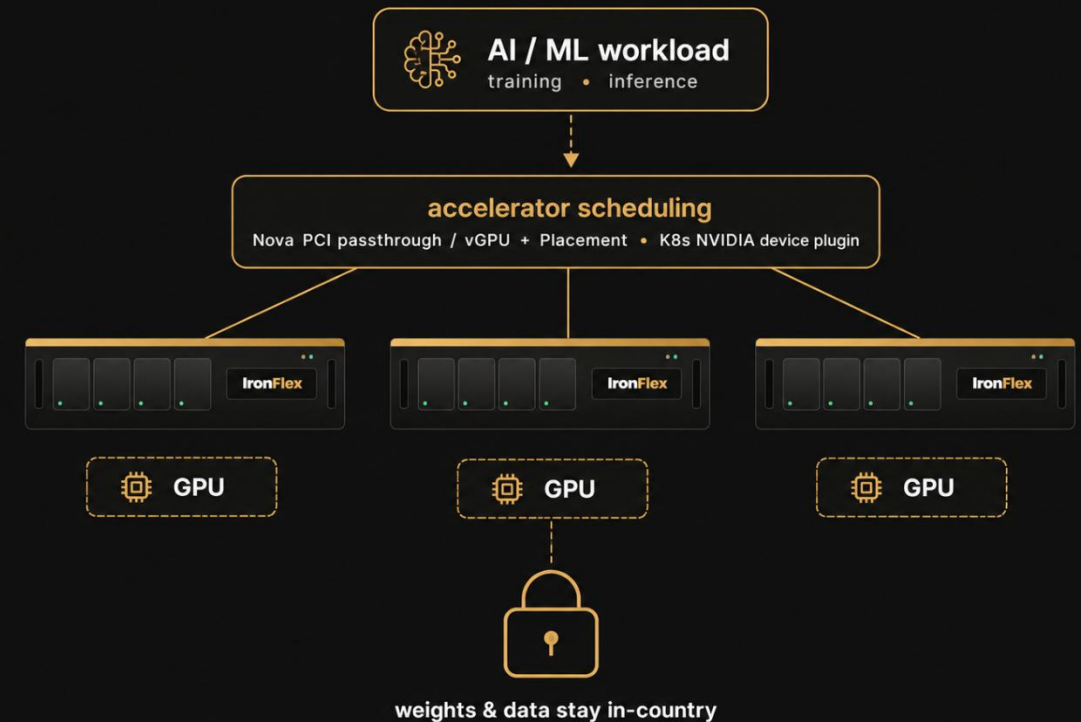
Sovereign AI

Run production inference on owned, in-country hardware.



Better economics

Owned GPU breaks even in ~11–12 months vs cloud.





IT ALL COMES TOGETHER

One Platform, **Every** Workload.



VMs



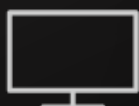
Kubernetes



AI / ML



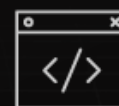
Databases



VDI



Analytics



Dev / Test



Edge / ROBO

All on one IronFlex platform — one team, one economic model.



THE HONEST COMPARISON

How it **Stacks** up.

WHAT THE BUYER CARES ABOUT	IRONFLEX	NUTANIX	VMWARE VCF
Economic Model	Owned - Predictable INR	USD Per-core	USD Per-Core / 72 Core Min
One Platform: VM + K8s + AI	✓ Converged	Mostly VM-Led	Converging (Paid)
DR + Security + Compliance	✓ Integrated	Paid add-ons	Paid add-ons
Made-In-India (PPP-MII Edge)	✓ Polystack	✗	✗
Sovereignty + Local Support	✓ In-Country	Foregin OEM	Foregin OEM
Standard-based No Lock-in	✓ KVM - OpenStack - Ceph	Proprietary	Proprietary

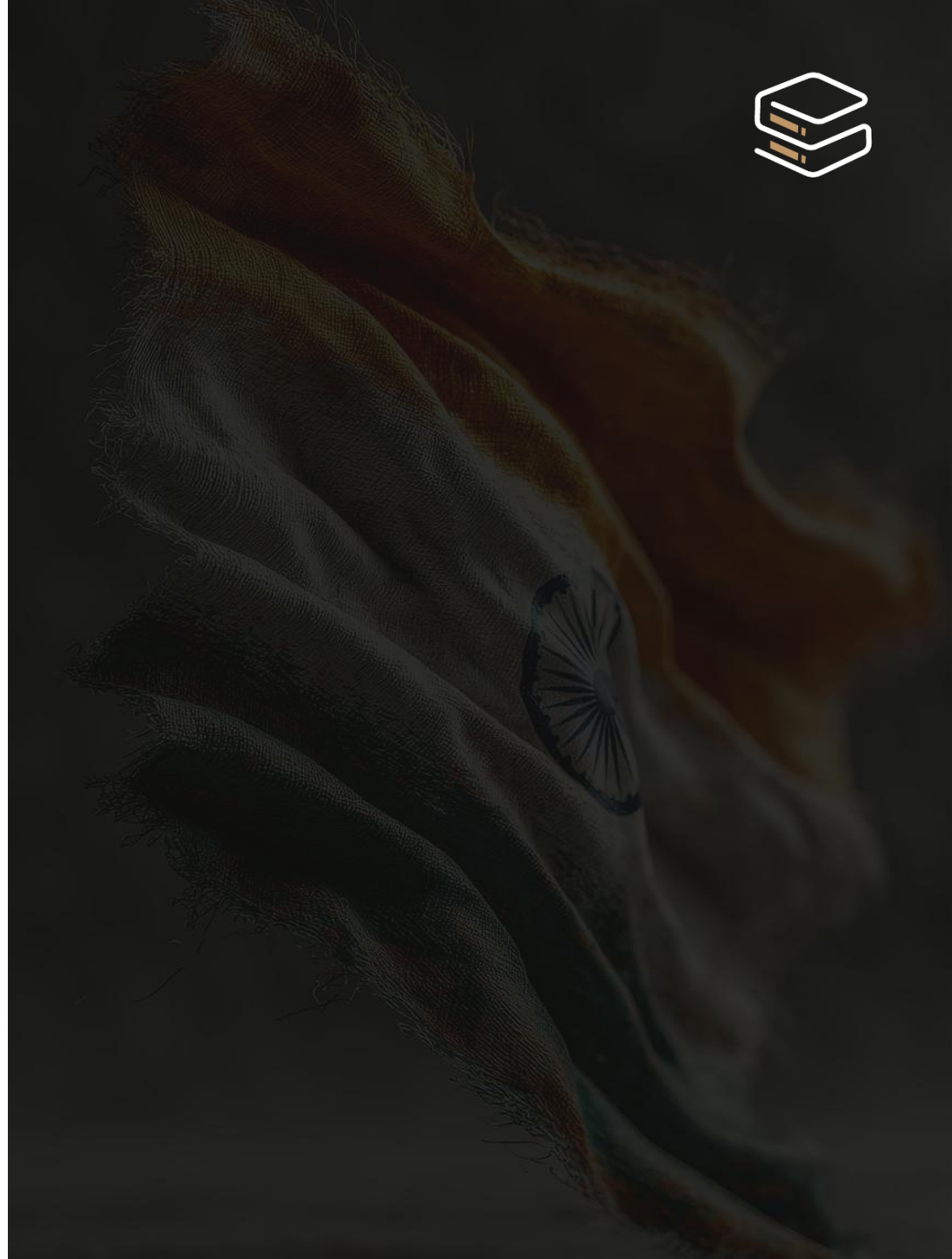
—> SOVEREIGNTY

BUILT HERE, SUPPORTED HERE

Made In India, by Design.

PPP-MII · Class-I Local Supplier

- Polystack hardware, engineered & validated in India — supported as one system.
- Purchase preference in public tenders ($\geq 50\%$ local content).
- Local support & supply chain — no overseas escalation, no import drag.





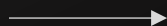
NO BENCHMARK SLIDES

Don't take Our Word, **Prove** it.



Validate

Functional check on Polystack
hardware



Migrate

Your real workloads, moved
over



Measure

Your numbers — TCO, SLAs,
performance

Book a PoC on Polystack hardware

—————> IN SHORT

WHY IRONFLEX

Four reasons it's different.

Owned

Predictable INR economics
— you own the asset.

Sovereign

Made in India, supported in
India.

Versatile

VM, containers & AI on
one platform.

Simple

One pane of glass — less
day-2 firefighting.



THANK YOU.

India's Own HCI – For Every Workload