

1 IDEA NAME

Catalyst RD1

2 TAGLINE / ONE-LINER VALUE PROPOSITION

“Own your intelligence — an offline, private AI that lives with you, not above you.”

Catalyst RD1 enables individuals and enterprises to experience powerful AI **without the internet** — fully private, decentralized, and adaptive to the user.

3 SECTOR

Deep Tech | Edge AI | Hardware + Software | Industry Innovation

4 CITY / STATE

Hyderabad, Telangana, India IN

5 PROBLEM – SOLUTION FIT

Problem

Today’s AI systems are centralized — personal and professional data is constantly uploaded to third-party servers.

This creates massive **privacy, security, and ownership risks**, especially in sectors handling sensitive data like healthcare, law, and governance.

Current Pain Points

- Data stored and processed in external clouds, risking leaks.
- Users have no control or visibility over how AI uses their data.
- AI assistants assume information instead of adapting to the individual.
- Most AI tools fail without internet connectivity.

Why It Matters

- Over **70% of users** are concerned about AI data misuse.

- **80% of AI inference** will move to edge devices by 2027.
 - Data localization and privacy laws are accelerating the need for decentralized AI.
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Solution

Catalyst RD1 decentralizes AI through **Fog + Edge computing**, enabling intelligence to run **directly on the user's device** or **within local networks**.

Key Features & Benefits: - Fully **offline AI operation** — no cloud dependency.
- **Learns only from user-provided data** (no assumptions or external datasets).
- **Data resides near the user** — even Catalyst as a company can't access it.
- Works across devices through **local sync and edge nodes**.
- Adaptive, secure, and context-aware intelligence for personal and enterprise use.

Unique Value Proposition:

> A **decentralized, privacy-first AI ecosystem** that belongs to the user — accurate, personal, and completely offline.

6 TECHNOLOGY & INNOVATION

Technology

- **Hardware:** Catalyst RD1 Device — Qualcomm Edge SoC, LPDDR5 RAM, UFS 3.1 Storage, E-Ink Display.
- **AI Stack:** Quantized Local LLMs (Llama 3.2, SmolLM2), ONNX Runtime, TensorRT.
- **Software:** Catalyst OS + SDK for local model control and edge deployment.
- **Security:** Encrypted local storage; peer-to-peer Fog sync; zero external data flow.

Innovation Differentiators

- AI that **runs entirely offline**, learns privately, and self-optimizes locally.
- Predicts only from **user inputs** — no preloaded bias or assumption.
- Modular **Fog + Edge architecture** for scalable deployment.
- **Zero-interface concept** — AI acts as the interface itself, generating task-based UIs on demand.

Scalability Roadmap

- **Phase 1:** Launch Catalyst AI Software Suite (SaaS).
- **Phase 2:** OEM integration with enterprise and third-party devices.
- **Phase 3:** Launch Catalyst RD1 Hardware for consumers.

Competitive Advantage

- Cloud-free operation → unmatched privacy and uptime.
- User-owned data → total control and compliance with privacy laws.
- Edge-based architecture → low latency and higher security.

7 MARKET OPPORTUNITY & SCALABILITY

Segment	Growth (CAGR)	Opportunity
Edge AI Hardware	24%	\$70B+
AI Privacy Tools	30%	\$18B+
Indian Consumer Tech	11%	\$125B by 2026

Industry Trends

- Rapid shift to on-device AI for privacy and efficiency.
- Global movement toward decentralized and regulatory-compliant data models.

Competitor Snapshot

Competitor	Model	Limitation
Rabbit R1	Cloud-based AI device	Internet required
Humane AI Pin	Cloud-dependent OS	Privacy concerns
Catalyst RD1	Offline Edge AI	Fully local, user-owned data

8 BUSINESS MODEL

Model	Description	Revenue Stream
SaaS	Catalyst AI Suite for individuals & developers	Subscriptions
OEM / White Label	Integration with partner devices	Licensing Fees
IaaS	Private AI infrastructure for enterprises	Edge deployment & service contracts

Customer Acquisition Strategy

- B2C: Direct digital channels and community-based onboarding.
- B2B: Enterprise partnerships in healthcare, law, and education.
- OEM: Collaborations with hardware manufacturers.

Target Customers

Enterprises, institutions, and privacy-conscious individuals seeking offline, personalized AI.

9 FOUNDING TEAM

Chava Veera Bhadra Dheeraj (Founder & CEO)

Leads Operations and Business Strategy with a focus on decentralized AI ecosystems, Fog + Edge infrastructure, and next-generation product innovation.

Core Team:

- Sasank P — AI Engineer & Device Designer (Tech Team Lead)

Specializes in AI model optimization and hardware design for Catalyst RD1 and enterprise systems.

- Shanmukha Rishi & Mani Surya — AI Engineers (Tech Team)

Jointly responsible for model integration, adaptive learning systems, and secure local deployments.

Advisory Board:

Industry experts in Edge Computing, Deep Tech, and Product Strategy.

10 VISION

Catalyst RD1 is redefining how AI should exist — **not as a centralized service, but as a personal intelligence companion.**

An AI that is **private, local, and loyal** — designed to protect your data, enhance your productivity, and evolve with you.

Catalyst aims to enable a world where users **own their intelligence**, where every AI runs privately near the user, and where **data never leaves their control.**