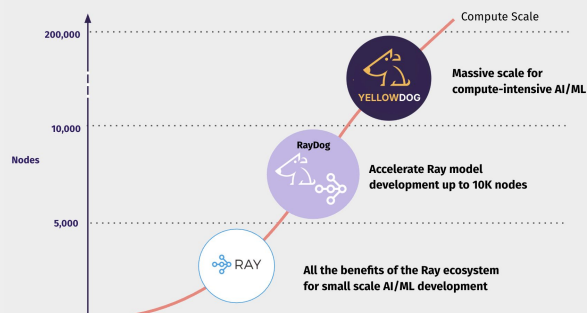# YELLOWDOG

RayDog Delivers the Ease of Ray with the Power of YellowDog

Ray is an open source framework that makes it simpler to build distributed AI and ML applications. RayDog takes it further, delivering instant orchestration for compute, cost efficiency, and seamless scalability—removing infrastructure barriers so teams can innovate faster.

Powered by YellowDog's dynamic workload manager, RayDog is purpose-built for financial services companies, AI innovators and research teams, enabling them to leverage the simplicity of Ray while accelerating development with full access to the highest levels of compute—driving faster experimentation and innovation.

Powering Ray Clusters at Massive Scale

Compute Scale

YELLOWDOG — Massive scale for compute-intensive AI/ML

RayDog — Accelerate Ray model development up to 10K nodes

RAY — All the benefits of the Ray ecosystem for small scale AI/ML development

Nodes: 200,000 / 10,000 / 5,000

RAYDOG ADVANTAGE

BUSINESS OUTCOMES

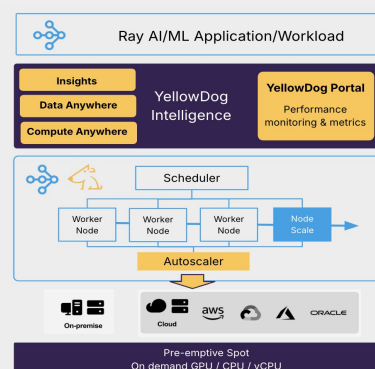| RAYDOG ADVANTAGE	BUSINESS OUTCOMES
Infrastructure Management - Fully managed compute infrastructure	Frees teams from infrastructure overhead, allowing data scientists and research engineers to focus on innovation
Scalability - Seamless scaling from local datasets to massive clusters up to 10K nodes	Accelerates time-to-market by enabling workloads to grow instantly to enterprise scale without rewriting code.
Autoscaling - Intelligent autoscaling with dynamic upscaling and automated downscaling	Ensures compute resources match demand in real-time, reducing costs and improving workload efficiency
Multi-Cloud Support - Supports multi-cloud provisioning across different regions	Provides resiliency and flexibility, allowing workloads to run where it's optimal for cost, performance, or compliance
Cost Optimisation - Bids for compute across clouds; automated reclamation of idle resources	Reduces cloud spend on ML and AI workloads, maximizing ROI and enabling cost-effective scaling
Security & Compliance - Integrated security and governance with policy-based scheduling	Ensures regulatory compliance and data protection, critical for finance, healthcare, and other regulated industries
Developer Experience - Developer-friendly Ray integration that is "Ray-ready out of the box"	Speeds innovation by letting developers use familiar Ray APIs and ML frameworks without worrying about underlying infrastructure
Observability & Monitoring - Detailed telemetry on Ray cluster performance and cost	Enables data-driven decisions, optimises workload distribution, and proves ROI to stakeholders

RayDog extends the open-source Ray framework with enterprise-grade orchestration. Under the hood, YellowDog's scheduler and autoscaler sit beneath Ray, managing low-level provisioning, scaling and workload distribution, across clouds and regions. From the Ray user's view, it behaves like Ray—while YellowDog handles the complexity of large-scale, cost-efficient, and stable compute up to 10,000 nodes.

Ray AI/ML Application/Workload

Insights / Data Anywhere / Compute Anywhere — YellowDog Intelligence — YellowDog Portal — Performance monitoring & metrics

Scheduler — Worker Node / Worker Node / Worker Node / Node Scale

Autoscaler

On-premise / Cloud / aws / ORACLE

Pre-emptive Spot — On demand GPU / CPU / vCPU

Accelerate Innovation with RayDog

Leading organisations focused on strategic innovation using AI/ML are accelerating workload development with RayDog, powered by YellowDog's high-scale, orchestrated compute platform. Learn more here.