RAMES
Rapid Analytic Management System

Datasheet
Version 3.5.0

RAMES

Enterprise Data & AI Platform

BIG DATA TO YOUR NEEDS

Your **Data.**
Your **Platform.**
Your **Intelligence.**

Rapid Analytics Management and Enterprise System (RAMES) adalah platform Enterprise Data terintegrasi untuk mengumpulkan, menyimpan, memproses, mengelola, menganalisis, dan memanfaatkan data dalam satu ekosistem.

Dengan arsitektur modular dan scalable, RAMES memungkinkan organisasi membangun platform data sesuai kebutuhan — mulai dari data integration dan data lake hingga analytics, governance, dan enterprise AI.



Unified Platform

Satu platform terintegrasi untuk seluruh enterprise data lifecycle.

Modular & Scalable

Mulai sesuai kebutuuan dan scale seiring pertumbuhan data dan workload.

Governed & Secure

Kelola metadata, security policy, access control, audit, dan platform visibility secara terintegrasi.

AI Ready

Bangun analytics dan AI di atas enterprise data yang terintegrasi.

From enterprise data
to trusted **insight and intelligence.**

On-Premise Ready | Your Data. Your Control. | Built for Your Needs.

RAMES
Rapid Analytic Management System

CONNECT · STORE · PROCESS · GOVERN · ANALYZE · AI

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02. Platform Architecture

Unified Platform Architecture

One Platform. Complete Data Lifecycle.

RAMES mengintegrasikan seluruh komponen data platform dalam satu platform terpadu untuk mengelola data end-to-end, dari integrasi hingga analitik dan AI, secara scalable, secure, dan mudah dioperasikan.

From Data Integration to **Analytics** and **AI.**

MANAGEMENT & OPERATIONS

Centralized Management with Ambari

Ambari

- Cluster Management
- Service Management
- Configuration Management
- Operational Control

DATA & AI EXPERIENCE

Access, Analyze and Build with Your Data

- Dashboard & Visualization
- Notebook & Interactive Analysis
- API Access & Integration
- Search & Exploration
- Analytics
- AI Applications

ANALYTICS & AI

Discover Insights and Power AI Workloads

- **Superset** — Business Intelligence
- **JupyterHub** — Interactive Notebook
- **OpenSearch** — Search & Analytics
- **Neo4j** — Graph Analytics
- **RAMES LLM** — Enterprise AI Platform

LAKEHOUSE & QUERY

Organize, Query and Explore Data at Scale

- **Apache ICEBERG** — Open Table Format
- **Trino** — Distributed & Federated SQL

DATA ENGINEERING & ORCHESTRATION

Transform and Prepare Data at Scale

- **Apache Spark** — Distributed Processing & Data Transformation
- **Apache Airflow** — Workflow Orchestration & Pipeline Scheduling

GOVERNANCE & SECURITY

Manage Data, Security and Compliance

- **OpenMetadata** — Data Catalog & Metadata Management
- **Ranger** — Access Control & Data Security

DATA PLATFORM

Scalable and Reliable Storage for All Data

- **Apache Ozone** — Scalable Object Storage
- **HDFS** — Distributed File Storage
- **OpenSearch** — Search Storage & Analytics Engine

INTEGRATION & STREAMING

Ingest and Connect Data from Any Source

- **Apache NiFi** — Data Ingestion & Flow Management
- **Apache Kafka** — Real-time Streaming & Messaging
- **n8n** — Integration & Workflow Automation

ENTERPRISE DATA

All Your Data Sources

Databases · Files · APIs · Applications · IoT & Sensors · Logs & Events · External Data

OBSERVABILITY & MONITORING

End-to-end Visibility for a Reliable Platform

RAMES Monitoring

- Infrastructure Monitoring
- Service Health
- Performance Metrics
- Alerting & Notification

From diverse data sources
to trusted insights
on a **unified platform.**

On-Premise Ready · Your Data. Your Control. · Built for Your Needs.

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03. Data Integration & Data Lake

Connect Any Data. Build a Trusted Data Lake.

Multiple **Sources.**
Flexible **Integration.**
Trusted **Data Lake.**

RAMES menyediakan kemampuan integrasi data yang fleksibel untuk mengumpulkan data dari berbagai sumber melalui batch maupun real-time streaming, dan menyimpannya dalam data lake yang scalable dan siap digunakan untuk analytics dan AI.

DATA SOURCES

- Database
- Files & Documents
- Applications
- API
- IoT & Sensors
- Logs
- External Data

Structured,
Semi-structured
and Unstructured Data

INTEGRATION & STREAMING

Ingest, Stream and Orchestrate Data

DATA INGESTION

- Batch Ingestion
- File & Database Integration
- API Integration
- Data Flow Automation
- Change Data Capture (CDC)

Apache NiFi
Data Flow & Integration

STREAMING PLATFORM

- Event Streaming
- Message Streaming
- Data Buffering
- Event Distribution
- Reliable & Scalable

Apache Kafka
Streaming Platform

WORKFLOW ORCHESTRATION

- Data Pipeline
- Workflow Automation
- Scheduling
- API Orchestration
- Custom Workflow

n8n
Workflow & Automation

ENTERPRISE DATA LAKE

Scalable Storage for Enterprise Data

RAMES Data Lake

Apache Ozone
Scalable Object Storage

HDFS
Distributed File Storage

- Scalable & Reliable
- Structured & Unstructured Data
- Ready for Analytics & AI
- Integrated with Governance

From data in any format
to a trusted data lake
for **analytics and AI.**

On-Premise Ready | Your Data. Your Control. | Built for Your Needs.

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Rapid Analytic Management System

CONNECT · STORE · **PROCESS** · GOVERN · **ANALYZE** · AI

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04. Data Engineering & Analytics

Turn Your Data into Insights and Intelligence.

RAMES mentransformasi data di data lake menjadi trusted data yang siap di-query, dianalisis, dan digunakan untuk menghasilkan insight maupun workload AI.

Transform **Data.**
Query at **Scale.**
Discover **Insights.**
Enable **AI.**

ENTERPRISE DATA LAKE
Trusted and Scalable Data



Apache Ozone
Scalable Object Storage

HDFS
Distributed File Storage

- Structured & Unstructured Data
- Scalable & Reliable
- Ready for Analytics & AI
- Integrated with Governance

DATA ENGINEERING
Transform & Prepare Data at Scale

APACHE Spark

BATCH PROCESSING
Process large-scale datasets

ETL / ELT
Prepare enterprise data

DATA TRANSFORMATION
Clean, transform and enrich data

DISTRIBUTED PROCESSING
Scale processing workloads

LAKEHOUSE & QUERY
Organize, Query & Explore Data

APACHE ICEBERG

- Open Table Format
- ACID Transactions
- Schema Evolution
- Partition Evolution
- Time Travel

Query Data Where It Lives

Trino

- Distributed SQL
- Federated Query
- Query Multiple Sources
- High Performance Query
- Open Standard (SQL)

ANALYTICS & INSIGHTS
Search, Explore, Visualize and Turn Data into Action

OpenSearch

- Full-text Search
- Indexing & Analytics
- Log & Data Exploration
- Real-time Search

neo4j

- Relationship Analysis
- Graph Query & Exploration
- Network & Link Analysis
- Connected Data Analytics

Superset

- Interactive Dashboard
- Self-Service Analytics
- Data Visualization
- Operational Analytics

ANALYTICS & AI READY

- Trusted Data
- Searchable Data
- Queryable Data
- Connected Data

Ready for downstream analytics and AI workloads.

From trusted data
to actionable insights
for **better decisions.**

On-Premise Ready | Your Data. Your Control. | Built for Your Needs.

RAMES
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CONNECT · STORE · PROCESS · **GOVERN** · ANALYZE · AI

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05. Governance, Security & Observability

Trusted, Secure and Reliable Platform.

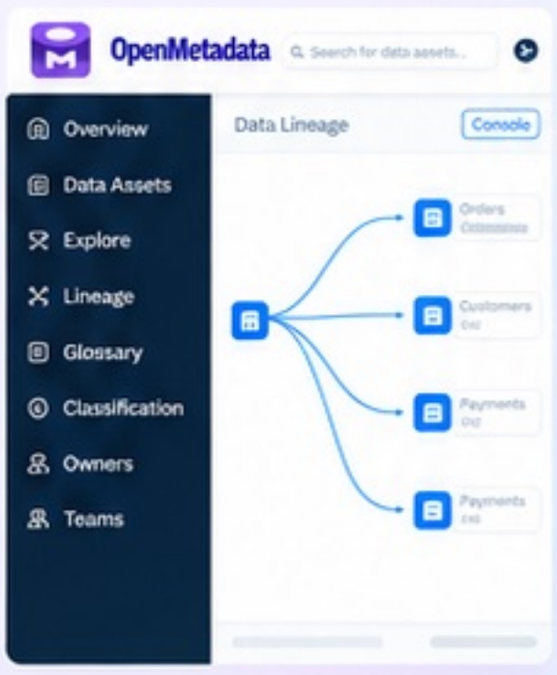
RAMES menyediakan kapabilitas terintegrasi untuk tata kelola data, **keamanan akses,** manajemen platform, dan observabilitas, sehingga seluruh lingkungan data dapat berjalan secara aman, terkontrol, dan andal.

From Data Governance to **Operational Excellence.**

OpenMetadata
Data Governance & Metadata Management

Kelola metadata enterprise secara terpusat untuk meningkatkan kualitas data, transparansi, dan kolaborasi antar tim.

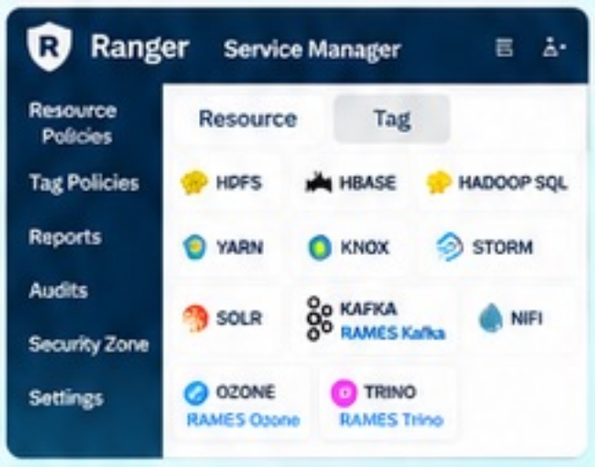
- Data Catalog
- Metadata Management
- Data Lineage
- Data Search & Discovery
- Business Glossary
- Data Ownership & Collaboration



Apache Ranger
Access Control & Data Security

Lindungi data dan layanan RAMES melalui kebijakan akses terpusat, fine-grained authorization, dan audit aktivitas pengguna.

- Fine-grained Access Control
- Centralized Policy Management
- Multi-service Authorization
- Access Audit & Traceability
- Tag-based Access Control
- Enterprise Directory Integration

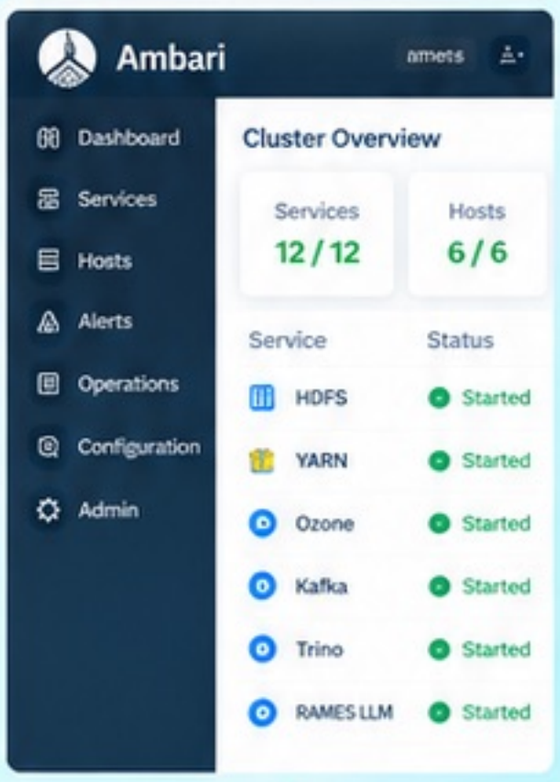




Apache Ambari
Platform Management & Operations

Kelola seluruh layanan RAMES secara terpusat dengan instalasi, konfigurasi, lifecycle management, dan operasional yang sederhana.

- Cluster Management
- Service Management
- Configuration Management
- Operational Control
- Lifecycle Operations



RAMES Monitoring
Observability & Reliability

Dapatkan visibilitas end-to-end untuk memastikan platform berjalan dengan sehat, stabil, dan optimal.

- Infrastructure Monitoring
- Service Health
- Resource Utilization
- Performance Metrics
- Alerting & Notification



RAMES Platform | Unified Governance, Security, Management and Observability Across All Data Services and Workloads

Trusted data.
Secure access.
Reliable operations.

On-Premise Ready | Your Data. Your Control. | Built for Your Needs.

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06. Data Experience & Enterprise AI

From Data to Real Business Value.

Turn Data into **Insight, Action and AI.**

RAMES menyediakan pengalaman terpadu untuk mengakses, mengeksplorasi, menganalisis, dan memanfaatkan data dengan dukungan Enterprise AI, sehingga setiap pengguna dapat menghasilkan insight dan inovasi lebih cepat.

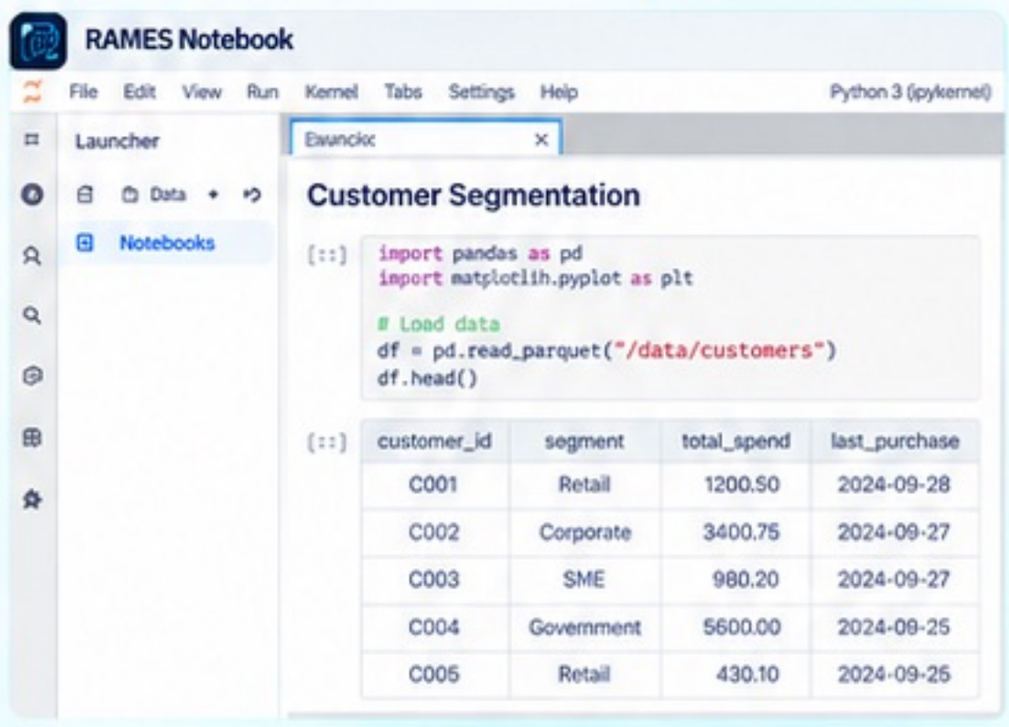
Dashboards
Interactive Analytics & Visualization
Powered by Apache Superset

- Interactive Dashboards
- Self-Service Analytics
- Data Visualization
- Executive & Operational Insights

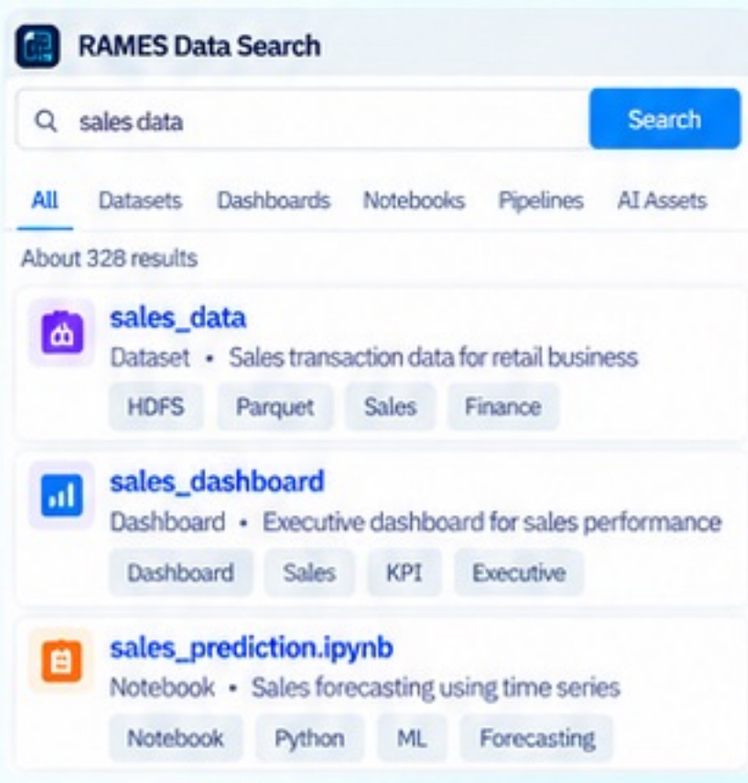


Notebooks
Interactive Data Exploration
Powered by **JupyterHub**

- Explore & Analyze Data
- SQL / Python Workspace
- Collaborative Analysis
- Model Experimentation

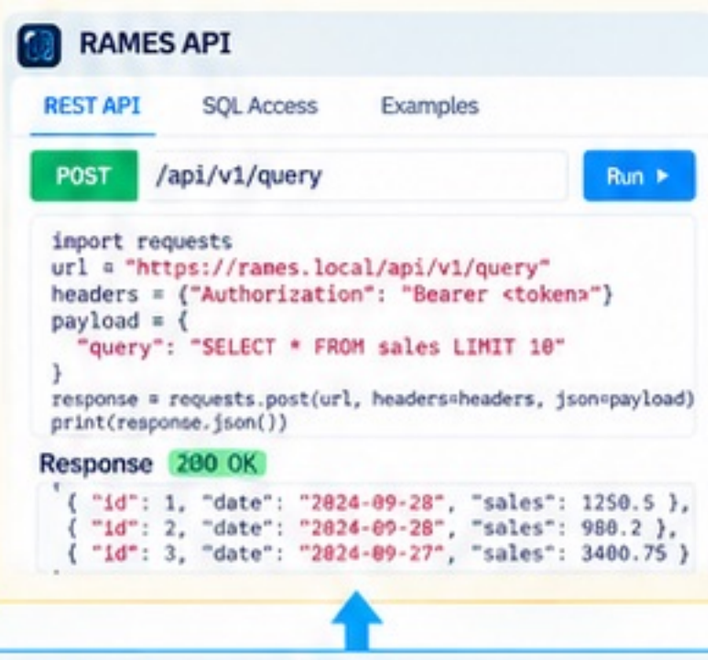


Data Search & Discovery
Find data, metadata and business assets across the platform.
Search · Catalog · Metadata · Relationships

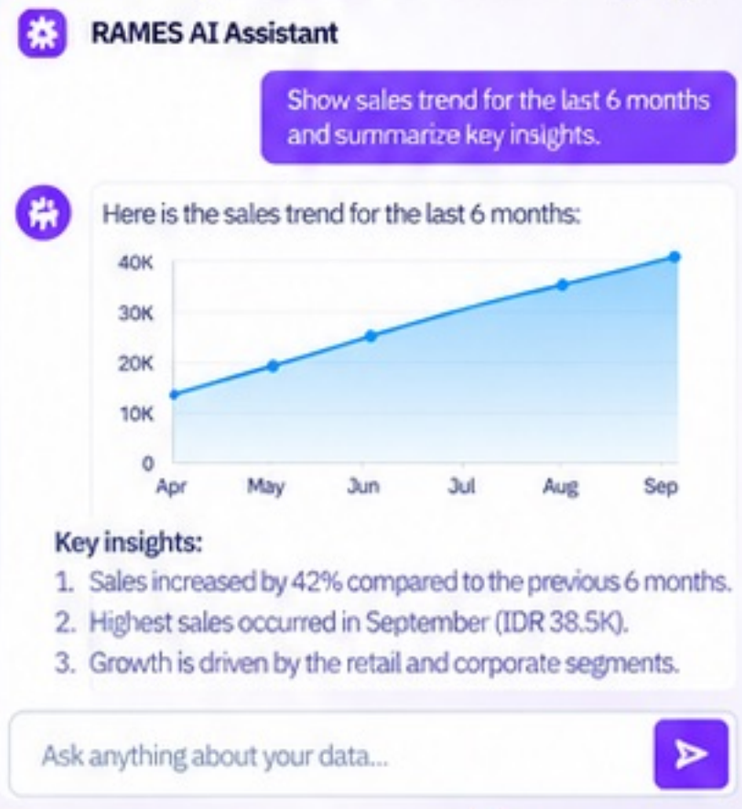


APIs & Data Services
Integrate RAMES capabilities into enterprise applications.

- REST API
- SQL Access
- Application Integration
- Data & AI Services



Enterprise AI
Powered by **RAMES LLM**
Leverage enterprise data with generative AI and natural language.



RAMES Platform | Unified Access to Data, Analytics and Enterprise AI

Your Data.
Your Intelligence.
Your Advantage.

On-Premise Ready · Your Data. Your Control. · Built for Your Needs.