rescale | In partnership with nVIDIA.

AI/ML-Enabled Engineering

The first intelligent automation platform for high-performance computing and AI/ML

Data Sheet

AI/ML Challenges Solved with Rescale:

» Address AI skills gaps

» Meet growing data quality and volume needs

» Modernize legacy IT and Engineering systems

Business Outcomes:

» Accelerated Product Time-To-Market

» Optimized Product Engineering

» Reduced R&D Costs

Powering R&D Breakthroughs Across Industries

Aerospace   Automotive

Semiconductor   Energy

Higher Education   Life Sciences

Manufacturing   Government

Powering New Possibilities for Research and Development

The methods used by scientists, researchers, and engineers to develop new and more advanced products are changing rapidly to adapt to an increasingly complex and competitive landscape. Organizations are combining the latest artificial intelligence and machine learning techniques with existing high-performance computing (HPC) and computer-aided enginering (CAE) to explore a broader set of design possibilities and accelerate the pace of innovation.

The Convergence of AI, HPC, and CAE — Made Possible with Automation

Rescale brings intelligent automation to applications, workflows, and infrastructures across hybrid cloud to deliver new levels of performance, control and R&D empowerment.

Performance & Efficiency
Optimize the full HPC stack with HW and SW-aware performance and cost intelliegence.

Key Features	Key Benefits
» Full-stack economics management with continuous performance optimization	» Run 20%+ more simulations on the same budget
» Software license queuing & software license management	» Financial flexibility with lower maintenance and staffing burden
» Multiple price/performance service levels	» Faster time-to-answer

Control at Scale
Define enterprise-wide policies to scale and standardize operations and meet business needs.

Key Features	Key Benefits
» Full-stack security with policy-based security management	» Reduced risk of service outage affecting critical R&D efforts
» Comprehensive visibility with policy-based financial and architectural controls	» Ensure critical projects are allocated the appropriate resources
» Service continuity with capacity bursting & fanout across hybrid and cloud	» Reduced risk of data loss & theft

Empowered R&D
Enable collaboration and simplify infrastructure to commercialize new innovations faster.

Key Features	Key Benefits
» Computational workflow automation with simulation data sharing	» Faster time-to-market of new innovations
» User and application-centric experience with automated HW matching	» Higher quality & more competitive products
» Full-stack professional support with application expertise	» R&D resources focused on innovation and higher R&D talent retention

END-TO-END HPC CONTROL AND INTELLIGENCE

Fully control and optimize your scale-out applications on any infrastructure

- Accelerate AI & ML Workloads
- Turnkey AI & ML Tools Acccess
- IT Management Workflows
- Science & Engineering Workflows

Latest AI & ML Tools

TensorFlow · Jupyter · python
OpenCV · learn · Keras

Traditional CAE Tools

DASSAULT SYSTEMES · SIEMENS · MATLAB · Ansys
COMSOL · HEXAGON · MSC Software · OpenFOAM

Rescale optimizes 800+ applications on the latest optimal hardware

Largest Cloud Network

Azure · aws · Google Cloud
AMD · intel · NVIDIA

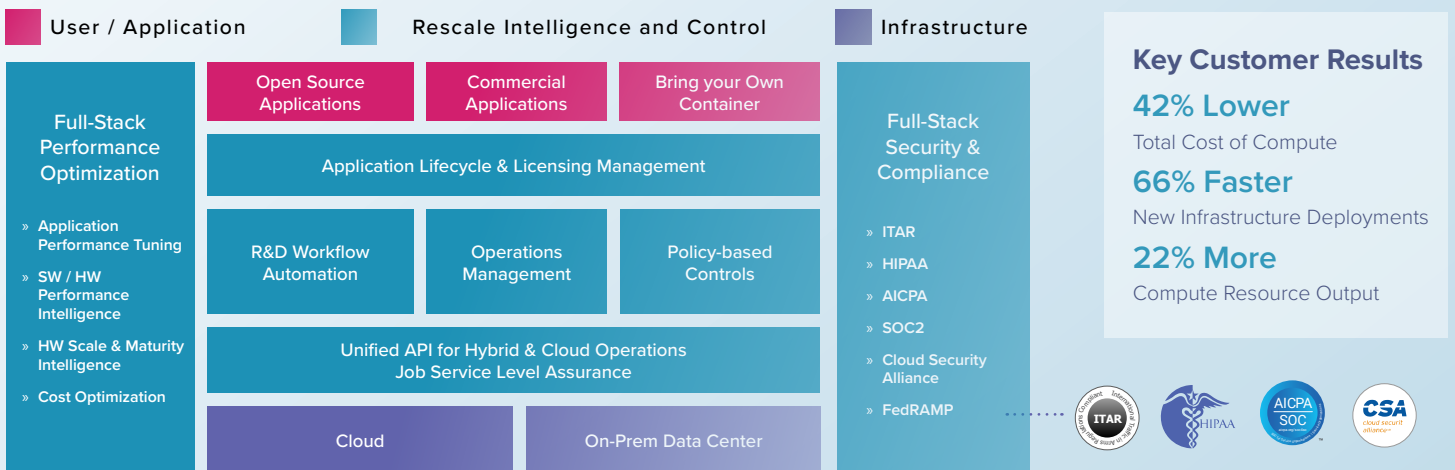"By partnering with Rescale we are able to unlock new possibilities and unprecedented scale to solve cutting-edge engineering challenges across biomedical, consumer goods, automotive, and other industries. With Rescale, we have been able to enhance our solutions for CAE and AI/ML to deliver faster time-to-market, more efficient supply chains, and reduced overall R&D costs."

— **Jim Topich, SVP of Engineering, Kinetic Vision**

kineticvision

Rescale Automates Applications and Hybrid Cloud Infrastructures to Deliver a Modern HPC Experience

- User / Application
- Rescale Intelligence and Control
- Infrastructure

Full-Stack Performance Optimization

- » Application Performance Tuning
- » SW / HW Performance Intelligence
- » HW Scale & Maturity Intelligence
- » Cost Optimization

Open Source Applications	Commercial Applications	Bring your Own Container
Application Lifecycle & Licensing Management		
R&D Workflow Automation	Operations Management	Policy-based Controls
Unified API for Hybrid & Cloud Operations Job Service Level Assurance		
Cloud	On-Prem Data Center	

Full-Stack Security & Compliance

- » ITAR
- » HIPAA
- » AICPA
- » SOC2
- » Cloud Security Alliance
- » FedRAMP

ITAR · HIPAA · AICPA SOC · CSA cloud security alliance

Key Customer Results

42% Lower
Total Cost of Compute

66% Faster
New Infrastructure Deployments

22% More
Compute Resource Output

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About Rescale
Rescale helps organizations accelerate science and engineering breakthroughs by eliminating complexity. From supersonic jets to personalized medicine, industry leaders accelerate new product innovations with unprecedented speed and efficiency with the Rescale Platform - a solution for intelligent full-stack automation for big compute and R&D collaboration on hybrid cloud. Rescale enables IT leaders to deliver high performance computing as a service, with software automation on a hybrid cloud control plane with security, architecture, and financial controls. Learn how you can modernize high performance computing at Rescale.com

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