

# SENSATEK EMPOWERS R&D INNOVATION WITH RESCALE

## Case Study



**Headquarters:** Daytona Beach, FL

**Industry:** Energy & Aerospace

**Founded:** 2015

### Challenge & Solution

Delivering new products in highly regulated industries requires extensive HPC simulation for testing critical safety and reliability performance. Sensatek turned to Rescale to simulate designs and materials in a variety of harsh environments and meet tight deadlines.

### Outcomes Achieved

- » **Performance & Efficiency:**  
The latest, best-fit hardware and continuous cost-performance optimization
- » **Control at Scale:**  
Complete IT/HPC controls simplify operations and manage cost & security risks
- » **Empowered R&D:**  
Turnkey R&D compute tools accelerate productivity

### Software Partner:



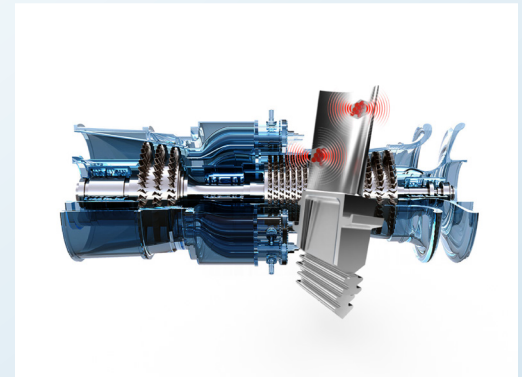
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### Launching Disruptive Technology in Established Markets

Sensatek Propulsion Technology, situated on the Space Coast - the aerospace hub of Florida, delivers cutting-edge turbine sensor technology to customers in record time. In the recent wave of innovation among aerospace companies, operational speed and agility are critical factors of competitiveness. Sensatek needed a way to accelerate their product development, control costs, and keep engineers focused on critical product milestones. By partnering with Rescale, Sensatek was able to quickly launch their multiple workloads and scale up across the latest and best-fit cloud HPC resources.

### Optimized Compute Leads to Accelerated Commercialization

Being the first to market with a novel sensor product in an established industry demonstrates Sensatek's engineering ingenuity and laser focus. They quickly made inroads in the aerospace and energy industries for their groundbreaking on-blade turbine sensor technology, but building a product that could withstand the rigorous demands of their customers (e.g. US Air Force) required rigorous testing on every design specification across a variety of harsh conditions. To do this they needed to simulate electromagnetics and materials performance under intense heat and velocity scenarios. Procuring and configuring the necessary compute resources posed a complex IT challenge which would have pulled critical attention and time away from product development. In choosing Rescale's platform for intelligent compute, Sensatek was able to automate their HPC operations and devote engineers' time to their key competitive advantage. Rescale also provided access to a library of industry-leading applications like Ansys HFSS, Fluent, and Mechanical, preinstalled and ready to use.



Sensatek CTO Josh McConkey said, "We have a variety of specific and intensive compute requirements that Rescale was able to optimize by helping us determine the cost-performant hardware for the workloads we run. Rescale was able to help us dynamically allocate and maximize our HPC resources, ultimately reducing our projected 2,200 simulation hours down to 300, or 9 months of work down to 2 months."

### A Strategic Investment to Unleash Competitive Advantages

As a company that takes pride in its approach to ideation and testing novel solutions, Sensatek needed a solution to solve their compute bottleneck. Prior to using Rescale for their HPC needs, Sensatek relied on custom-built workstations that often required several weeks to complete a new design simulation, resulting in costly delays. "Utilizing Rescale's compute expertise gives us an advantage of tools that would normally be available to larger companies" said founder and CEO Reamonn Soto. "Our strategic investments in technology like Rescale are important for our ability to solidify our competitive advantage in the market, especially for our speed to market and enabling our team to focus on what we do best."



## Rescale optimizes 600+ HPC applications on any hybrid cloud architecture



“With Rescale, we are able to innovate at the speed of human thought, instead of being limited by compute restraints. That is powerful.”

- Joshua McConkey, Chief Technology Officer - Sensatek Propulsion Technology

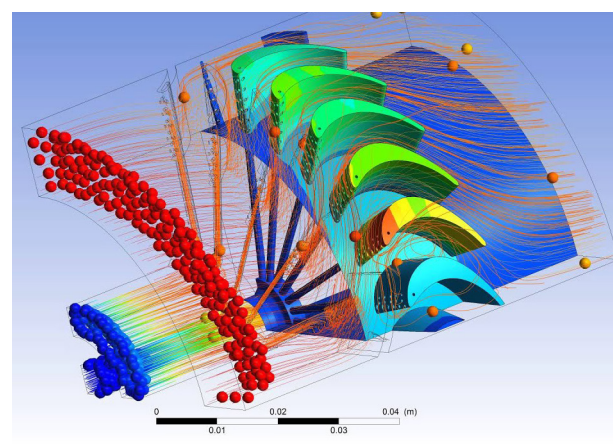
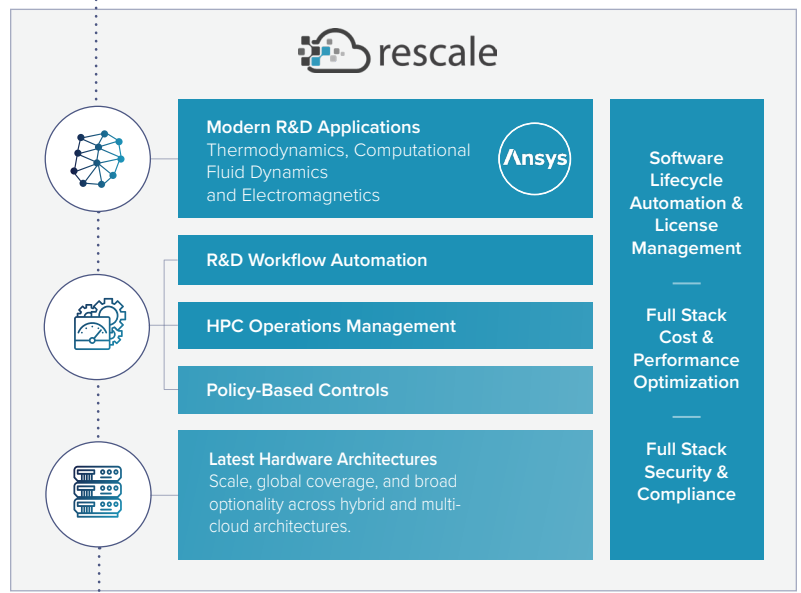


## Rescale Integrates Best-in-Class Tools For Digital R&D



### Define R&D Objectives

- » Accelerate Speed to Market
- » Reduce IT Burden
- » Validate New Technology
- » Test in Various Environments



### Featured Partner: Ansys

Ansys is the global leader in engineering simulation. Through our strategy of Pervasive Engineering Simulation, we help the world's most innovative companies deliver radically better products to their customers. By offering the best and broadest portfolio of engineering simulation software, we help them solve the most complex design challenges and create products limited only by imagination.

For more information visit the [Ansys and Rescale Partner Page](#)



### Strategic Business Outcomes

- » Faster Time-to-Market
- » End-to-End Automation
- » Improved Quality & Competitiveness
- » Decreased CapEx



**Headquarters**  
33 New Montgomery St., Suite 950  
San Francisco, CA 94105

1-855-737-2253

### 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