

An illustration on a dark blue background showing three people working from home. A person sits on a sofa at the top, another on a chair on the left, and a third on a floor cushion on the right, all using laptops. They are surrounded by large, light-blue wireframe models of mechanical parts, including a turbine-like structure and a long cylindrical component. Thin orange lines connect the people to specific points on the wireframe models.

INNOVATE FROM ANYWHERE

High performance while working from home
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HPC from home office

Innovate from anywhere



AGENDA

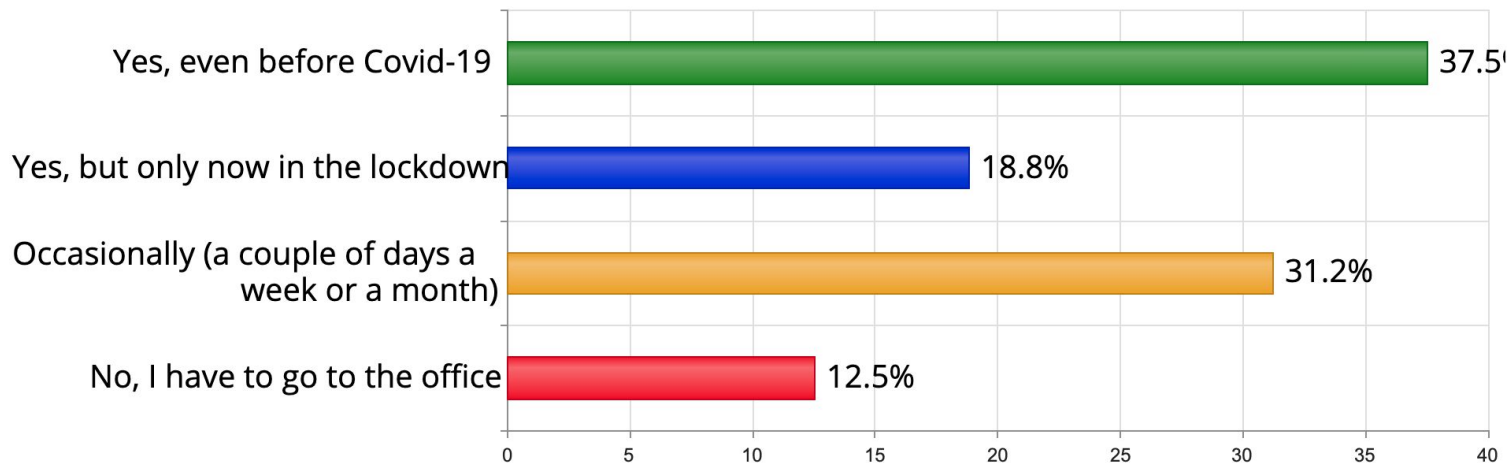
- Challenges in home office
- Rescale for Remote Teams
- Outcomes and Benefits with Rescale
- Examples



Poll #1

Do you currently work from home?

1. Do you currently work from home in home office?



Question info:
Single response
n=16 users voted.





Can one be productive in home office?

“I can work on my cluster only through a remote desktop from home and the connection is slow”



“The VPN connection can sometimes be overloaded and then I have to wait.”



“I am only limited to a certain number of cores so my large jobs run for several days”



“I usually start large jobs in the evening or on weekends due to long calculation times and long queues”



“When I want to run a new software, I open an IT ticket and wait (several weeks...)”



“I have issues with data transfer speed while working from home”



**“I have to share my results with my
colleagues through e-mail or
company’s messaging app”**



Do you relate?

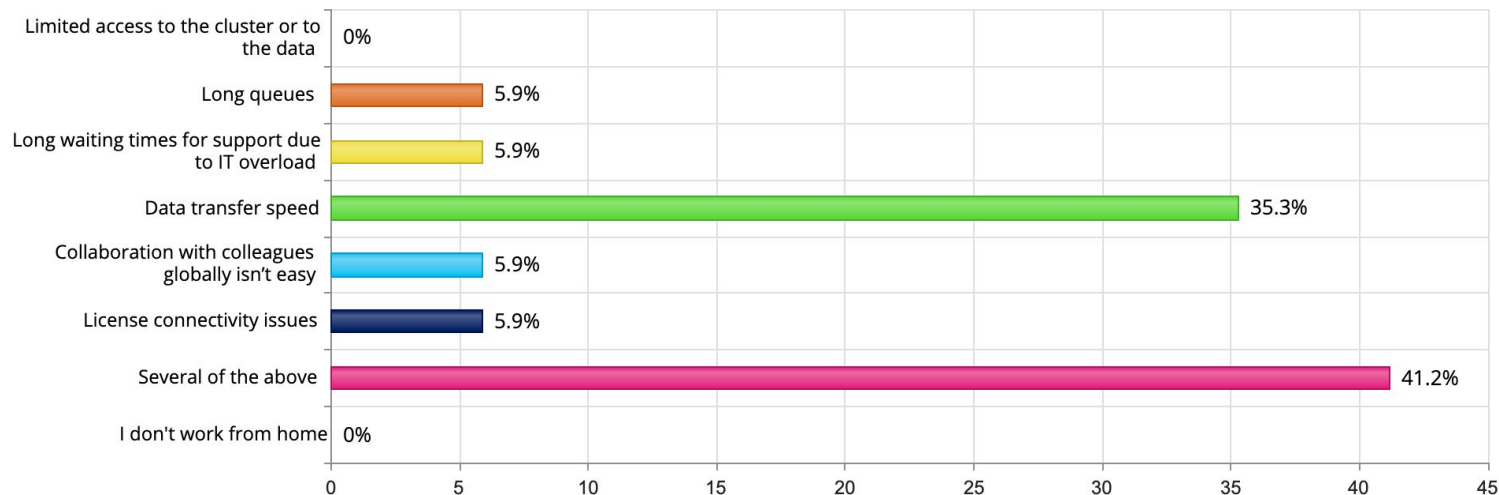


Poll #2

Which of this issues do you encounter if working from home?

1. Which of this issues do you encounter if working from home?

Question info:
Single response
n=17 users voted.





Welcome to the Platform

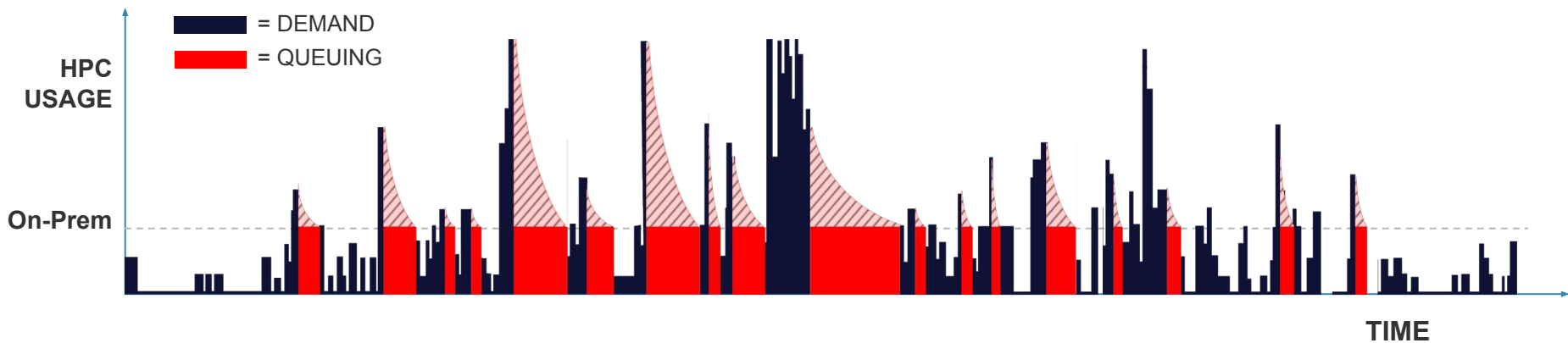
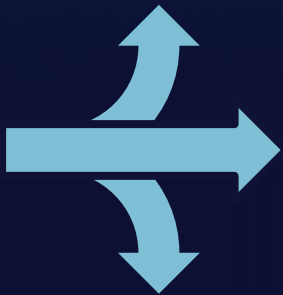
Rescale for Remote Teams



Meeting The Demand for Innovation

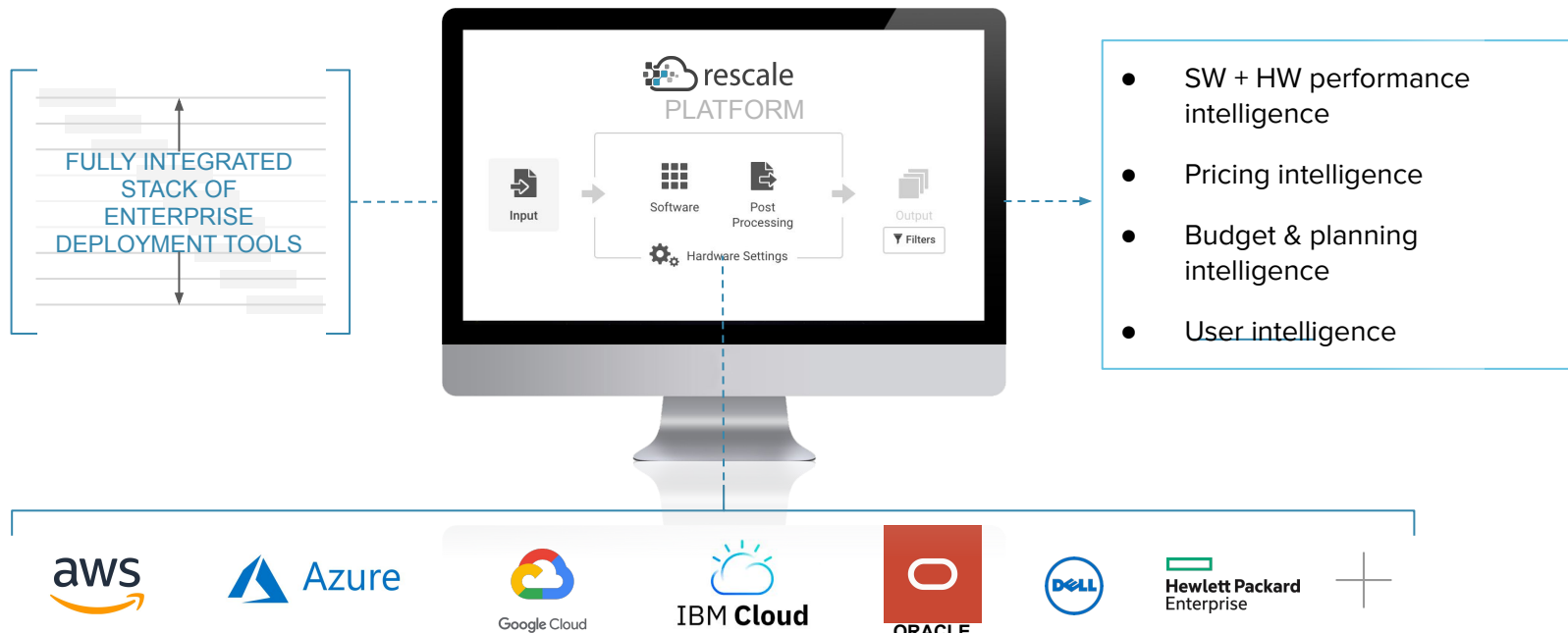
Rescale - Flexible

Traditional HPC - Fixed



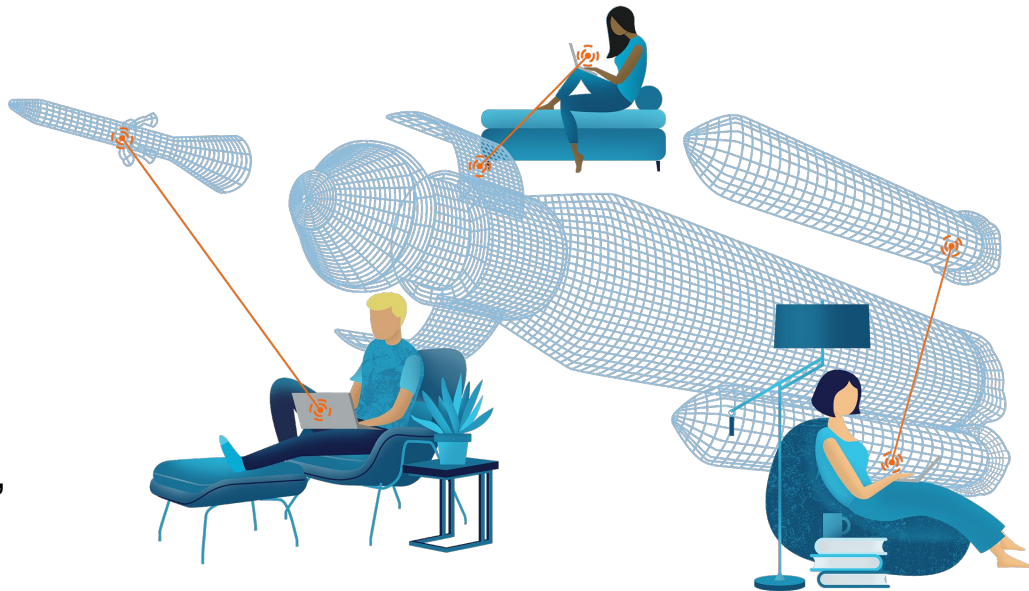


One platform. Any infrastructure. Any application.



Rescale for Remote Teams

- On demand clusters at scale, unlimited computing power, instantly
- Access to software
- Virtual desktops
- Optimized workflows, automation and collaboration, globally accessible
- Fully secure and compliant

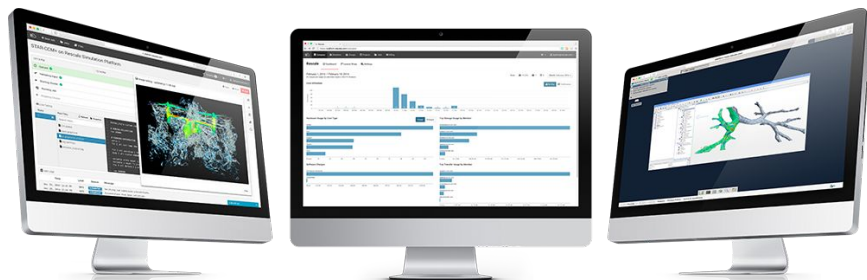


Security



Rescale is world's most compliant HPC platform available.

- Full administrative management and IT dashboard provide comprehensive controls and visibility
- Software defined security policy implementation tools to enforce proper IP handling
- Encryption in transfer with high-grade TLS and multi-layered encryption at rest with 256-bit AES



SOC 2 Type 2 Attested



CSA Registered



ITAR Compliant *

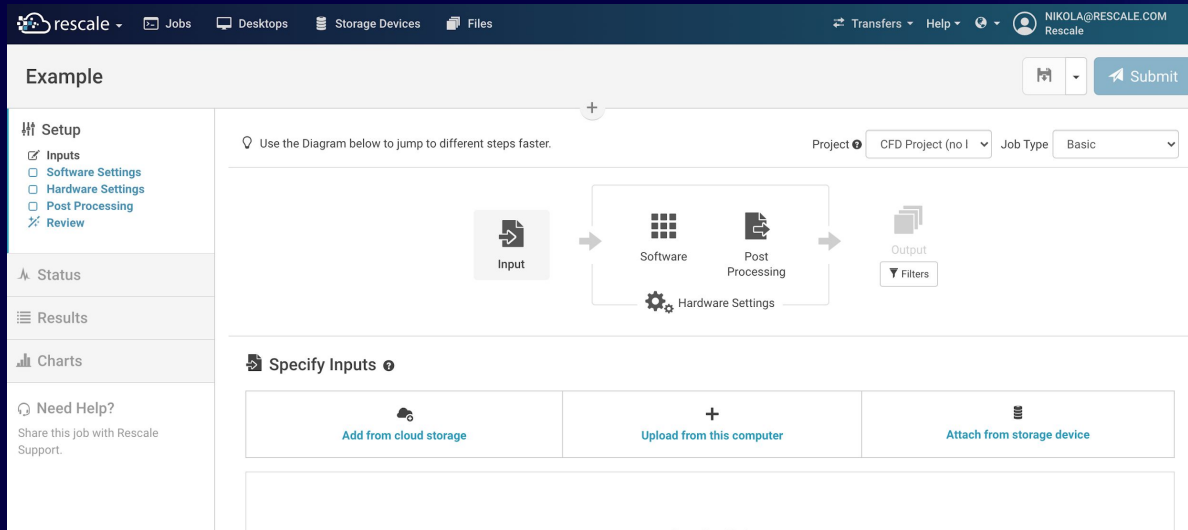


HIPAA Certified *



EU-GDPR compliant

Engineering productivity with cloud-like simplicity



Make the infrastructure invisible to simulation engineers

- Simple browser interface - from simple jobs to parametric sweeps
- Cloud desktops to run interactive simulation applications or visualizations
- Easily share jobs to collaborate with others



Access to software

675

Applications

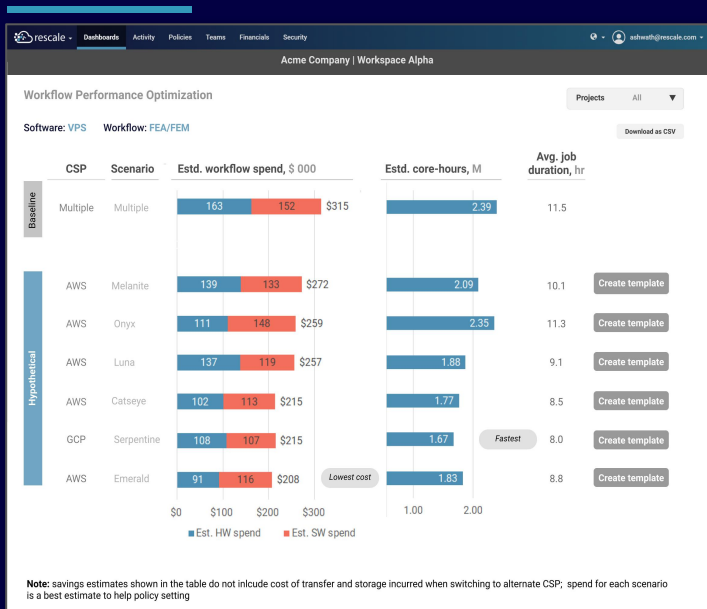
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Versions

- Popular software from nearly all major industries
- Multiple versions of many softwares available
- Ready to run on demand on a broad set of Rescale-enabled infrastructure
- Tuned for best performance



Continuous performance optimization and policy enforcement

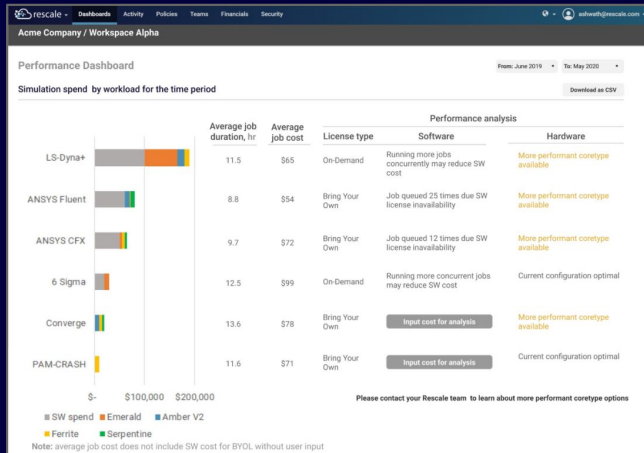


```
venv mohamed %  
curl -H $RESCALE_AUTH_TOKEN "https://platform.rescale.com/api/v2/jobs/" -d '{  
  "name": "Run LS-DYNA at lowest cost",  
  "is_template": true,  
  "jobanalyses": [  
    {  
      "analysis": {  
        "code": "ls_dyna",  
        "version": "R12.0.0"  
      },  
      "hardware": {  
        "coreType": "carbon",  
        "coresPerSlot": 132  
      },  
      "command": "ls-dyna -i <input> -p single",  
    }  
  ]  
}'  
  
venv mohamed %  
curl -H $RESCALE_AUTH_TOKEN "https://platform.rescale.com/api/v2/organizations/acme/templates/" -d '{  
  "non_admin_users_can_create_templates": false,  
  "non_admin_users_must_launch_from_template": true,  
  "non_admin_users_can_modify_template_jobs": true,  
}'
```

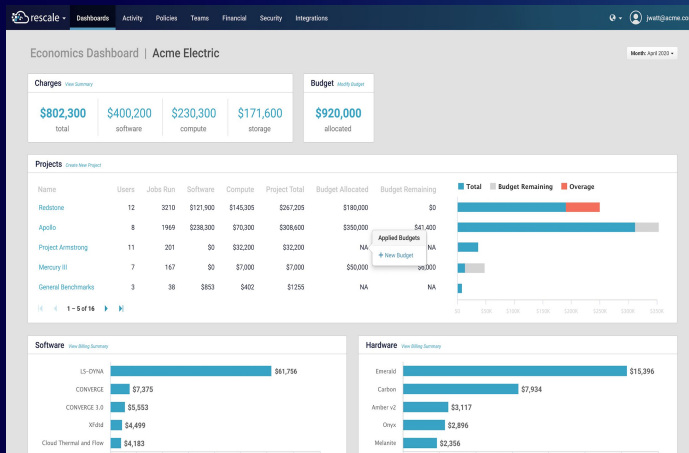
- Notification when more performant hardware is available for your workloads
- Set policies through policy-as-code (user policies, security policies, license conditions)



Financial control & performance optimization with intelligent computing



Performance Dashboard



Economics Dashboard

- Often more expensive than hardware
- Full stack economic transparency on all workloads
- Performance and cost optimization



DIY vs Rescale

Capability \ Level of effort	DIY	Rescale
Optimization of HW/SW configuration based on each simulation project	Need to test and optimize each time	Automated
Scale up and down computational resources as needed to meet deadlines	Not possible if not supported by available HW	Automated
Full-stack support	Need to be developed ad hoc	Included
Workflow and data management	Needs to be developed ad hoc	Automated
Simulation with the desired level of accuracy	Not possible if not supported by available HW	Automated
Sharing and collaboration	Needs to be developed ad hoc	Included
Business ROI & IT Performance dashboards	Need to be developed ad hoc	Included



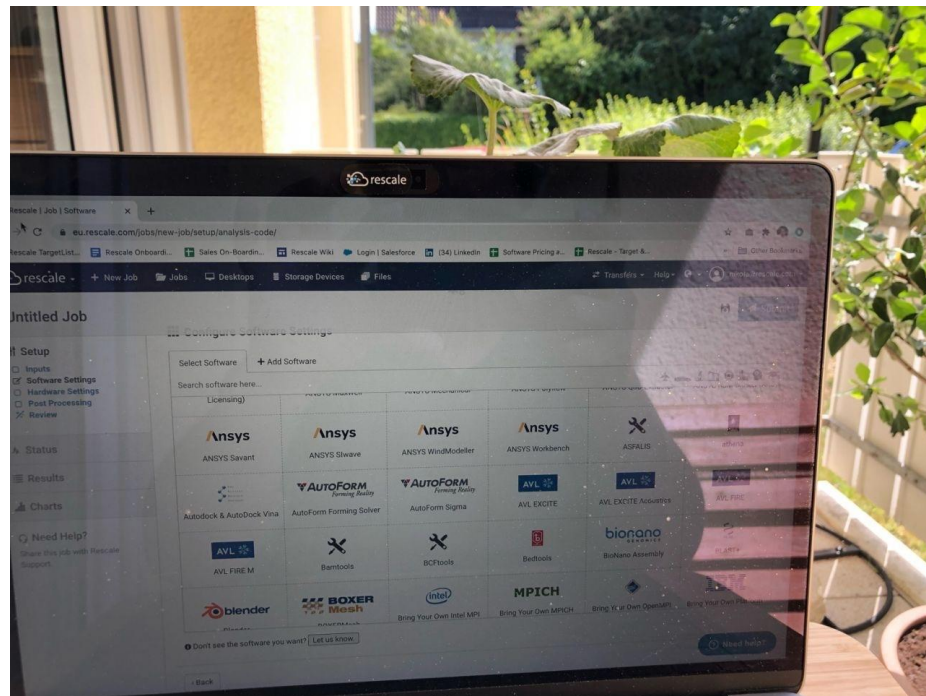
Examples



Rescale - distributed-first



- Distributed workforce over three continents
- Collaboration within the team and with the customers through the Rescale platform
- Freedom and responsibility of individual employees





“We were able to transition smoothly to cloud and run hundreds of simulations with on-demand agility and flexibility, without exhausting capacity, to accelerate innovation.”

-GM, Nissan Motor Corporation

HPC Expenses



52% Reduction

2-3 Days Average Queue Time

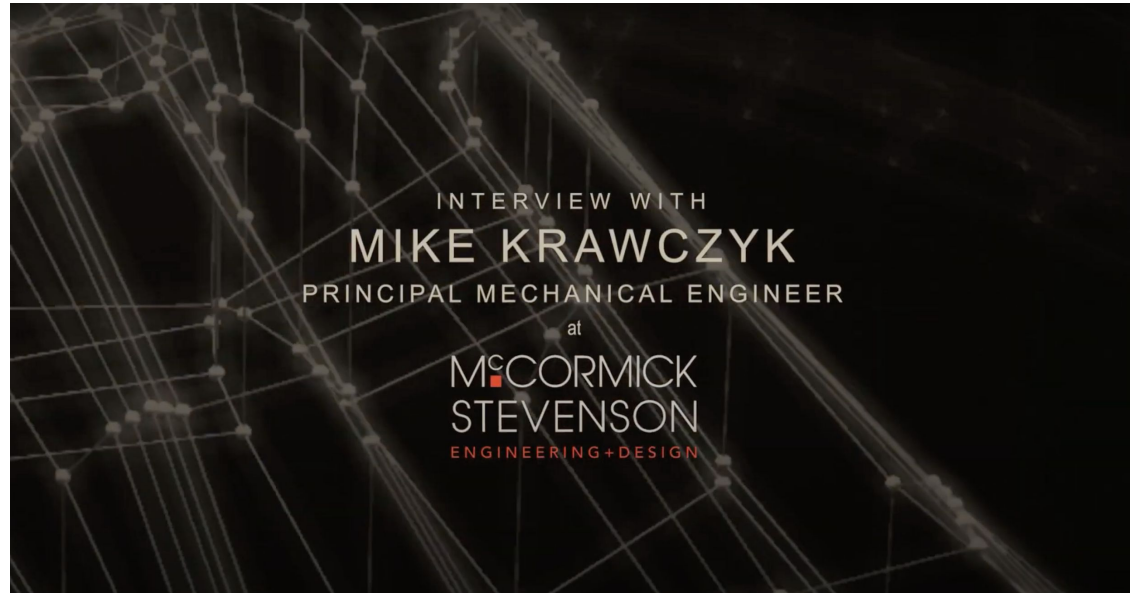


99% Reduction to Queue Time

Applications and Productivity



18% Cost Optimization



<https://www.youtube.com/watch?v=BM8nFZWzSKU>

"Using Rescale at the office." - Joshua McConkey, CTO
of Sensatek Propulsion Technology, Inc

#HappyFriday #InnovateFromAnywhere

Übersetzung anzeigen





Rescale for Remote Teams - focus on your R&D work

With the Rescale platform you can

- **Access** on demand clusters at scale, get unlimited computing power, instantly
- **Access** 650+ software in the cloud
- **Automate** workflows and data management
- **Focus** on innovation and product quality by getting high-fidelity simulation results faster
- **Control** simulation costs
- **Optimize** SW license usage
- **Collaborate** with colleagues globally and remotely





Intelligent Computing for Digital R&D

High Performance
Computing

Cloud
Automation

R&D
Operations

Business
Management



A MODERN HPC EXPERIENCE

Contact us for a further conversation:

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