

# TotalCAE Public Cloud Case Study



## BENEFITS

- Simple and easy to use TotalCAE web portal to simplify access to HPC cloud resources for all your engineering applications.
- Customer pays direct cost of the cloud compute power, no middle man markup.
- Tuned cloud instances using TotalCAE TrueCore to maximize application performance.
- Automated spin up and spin down of compute resources based on demand to save money.
- Easy integration with existing license servers.
- Access to TotalCAE support via phone and email for white glove IT support.
- Full command line available for power users.

## Company Overview

Achates Power is the developer of radically improved internal combustion engines that increase fuel efficiency, reduce greenhouse gas emissions and cost less than conventional engines. Achates Power Opposed-Piston Engine allows global original equipment manufacturers (OEMs) to achieve the world's most stringent current and future fuel efficiency and emissions standards without additional cost or complexity.

## Challenges

Customer needed additional compute capacity to meet a short term high priority project. The standard delivery time for new equipment to add to their existing HPC cluster would take too long for the project, immediate on-demand compute power was needed that engineers could quickly utilize with minimal impact.

## Solution

The TotalCAE Public Cloud solution was implemented to achieve the on-demand burst capability that was needed for success of this project.

TotalCAE Public Cloud for FEA/CFD is a turn-key, fully managed HPC cluster appliance for engineering applications that we manage "in the cloud" on Amazon AWS or Microsoft Azure.

TotalCAE takes complete ownership of managing the entire public cloud environment. We help you make your engineering team more productive by making it simple to burst to cloud for all of their FEA/CFD tools.

***"TotalCAE made it simple to incorporate burst to cloud with our existing TotalCAE private cloud. We just pointed our browser to a new URL and we were able to keep using the same intuitive web interface to run our applications"***

– Achates Power Senior Engineer



The TotalCAE portal is utilized for simple job submission to the HPC cloud cluster. Jobs are up and running with just a couple clicks. Engineers did not have to have additional training to run on the TotalCAE on-demand public cloud, just point their browser to a new URL and go. Compute nodes are automatically spun up and down based on demand to ensure maximum cost savings.

## Results

The customer was able to get results back on the same day and take advantage of the on-demand nature of the public cloud to complete the project successfully without needing to wait for a procurement cycle for new hardware.

Have questions or want to learn more about private and public cloud solutions for CAE? Check out our learning resources at <http://www.totalcae.com/learn> or contact our sales department at [sales@totalcae.com](mailto:sales@totalcae.com).



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24 Frank Lloyd Wright Dr.  
Ann Arbor, MI 48105  
1-888-268-3930  
[www.totalcae.com](http://www.totalcae.com)