GAMMA TECHNOLOGIES

GT-CLOUD

Cloud-Based On Demand Simulation Solution

Introducing GT-CLOUD

Engineering simulation demand is ever-increasing as companies choose to test and optimize their designs virtually. Gamma Technologies is addressing this growing demand by expanding access to our simulation capabilities to include an on-demand, HPC cloud environment, GT-CLOUD.

GT-CLOUD provides web-based access to GT-SUITE, and scalable high-performance computing capacity that offers unprecedented speed of results on a CPU-hour basis. It allows companies of all sizes the ability to run, on the cloud, the same best-in-class simulations that global OEMs run each day. For existing Gamma Technologies customers, GT-CLOUD offers expanded and urgent off-site compute resources for peak demand needs to complement their in-house compute capabilities.

Why use CLOUD?

With GT-CLOUD, users are able to:

Get Results Faster

- Usage tracked by time instead of solver instances (no license limits means more parallelization)
- More concurrent simulations, less queuing time

Accessibility and Reliability

- Reduce need to set up and maintain costly hardware on-premises
- Powerful high-performance computing available to all organizations

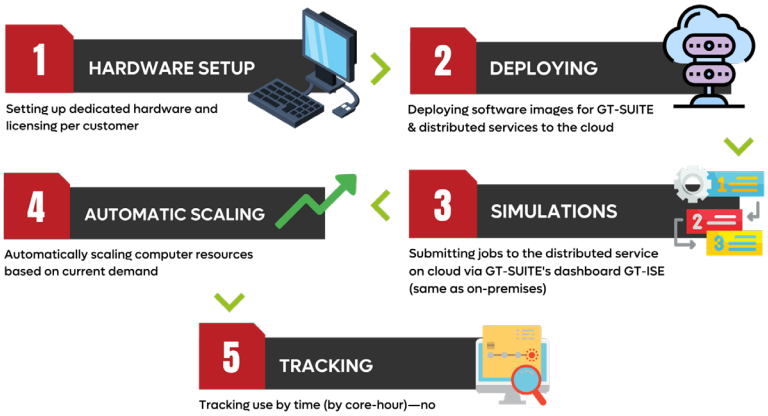
Elastic Burst Computing Capabilities

- Automatic scaling of resources based on demand
- Useful for occasional large DOE studies, urgent projects, and seasonal variation in simulation needs

How Does It Work?

GT-CLOUD provides a complete platform by:

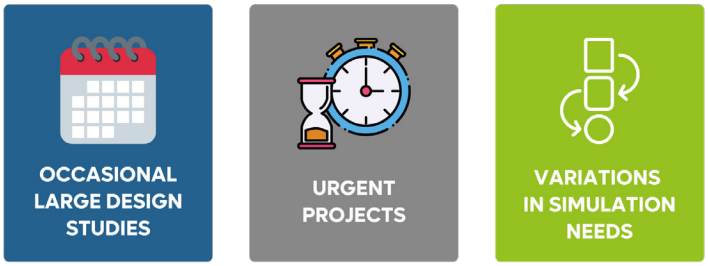
- Setting up dedicated hardware and licensing per customer
- Deploying software images for GT-SUITE & distributed services to the cloud
- Automatically scaling computer resources based on current demand
- Seamlessly integrating model submission from GT-SUITE's dashboard GT-ISE to the distributed service on cloud (same as on-premises)
- Tracking use by time (by core-hour)—no license limit on concurrent solver instances



GT-CLOUD works with the leading cloud service providers:

- Google Cloud
- Amazon AWS
- Microsoft Azure

Google Cloud aws Azure



Common GT-CLOUD Use Cases

GT-CLOUD can be useful for large design studies and explorations that occur periodically during the product development cycle, especially early on:

- Large Case Sweeps
- Design of Experiments (DOE)
- Optimization Studies

GT-CLOUD can provide faster results to meet urgent project needs, such as:

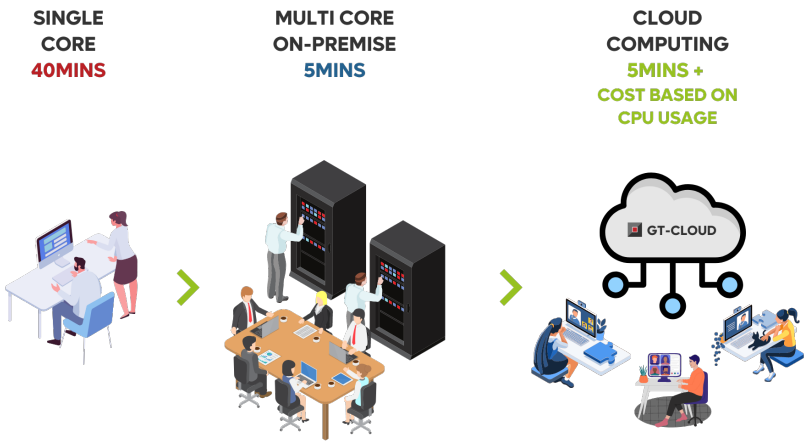
- Validating last-minute design changes
- Studying a component failure in the field
- Other investigations that require immediate attention

The demand for simulation often fluctuates throughout the product development cycle. Existing licenses can continue to cover baseline usage while GT-CLOUD supplements during periods of high peak usage.

Enhance Distributed Computing Feature with GT-CLOUD

GT models are split up by operating conditions into cases and case setup. These operating conditions might include variables like engine speed, temp, battery SOC, etc. While running a simulation there are a few simulation types available local, local distributed and distributed cluster. In a simulation example of 8 cases and 5mins taken by each case it takes around 40mins to run the simulation whereas in the distributed cluster the time taken has been reduced drastically from 40mins to only 5mins by dividing the 8 cases into 8 cores parallelly.

However, as the demand for cost effective and web based computing is on the rise there is a growing need for moving these types of simulations from on premise clusters to the cloud. All this is now possible with the GT-CLOUD on-demand cloud solution.



HEADQUARTERS | 601 Oakmont Lane, Suite 220, Westmont, IL 60559, USA. Other GT offices: GERMANY | INDIA | GREECE | FRANCE

For more information, please visit: www.gtisoft.com

GT