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HPC in the Cloud: Gompute Support for LS-Dyna Simulations
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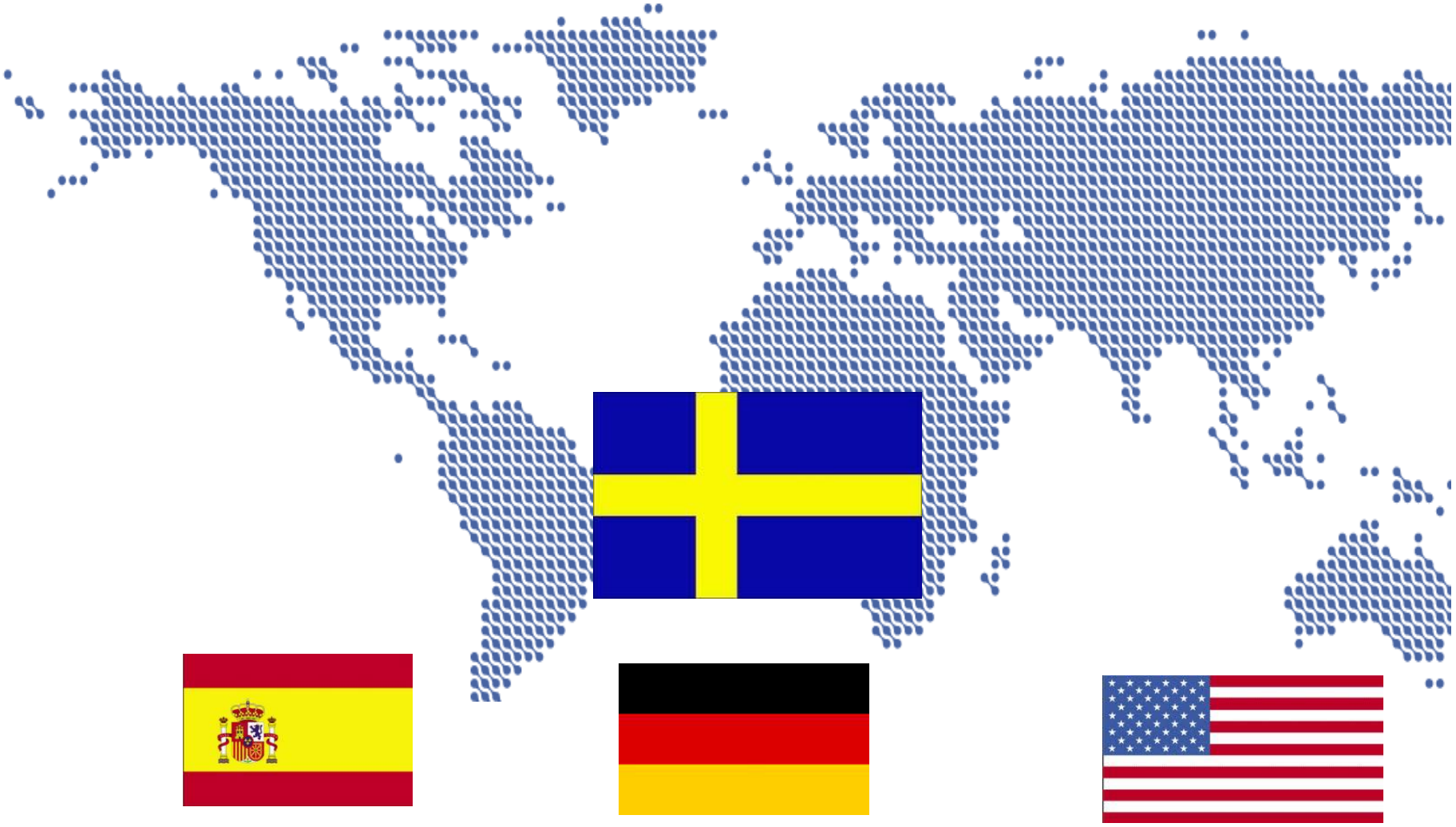
What is Gompute?

HPC since 2002



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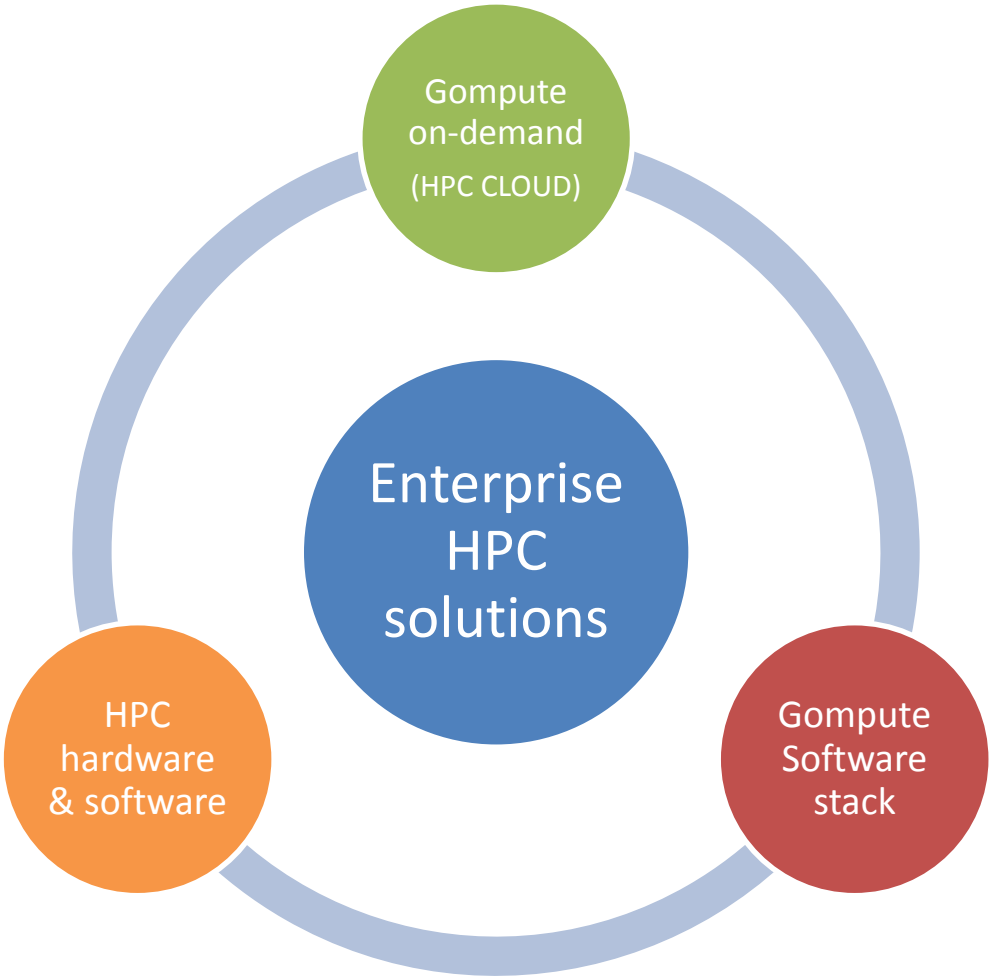
About Gompute



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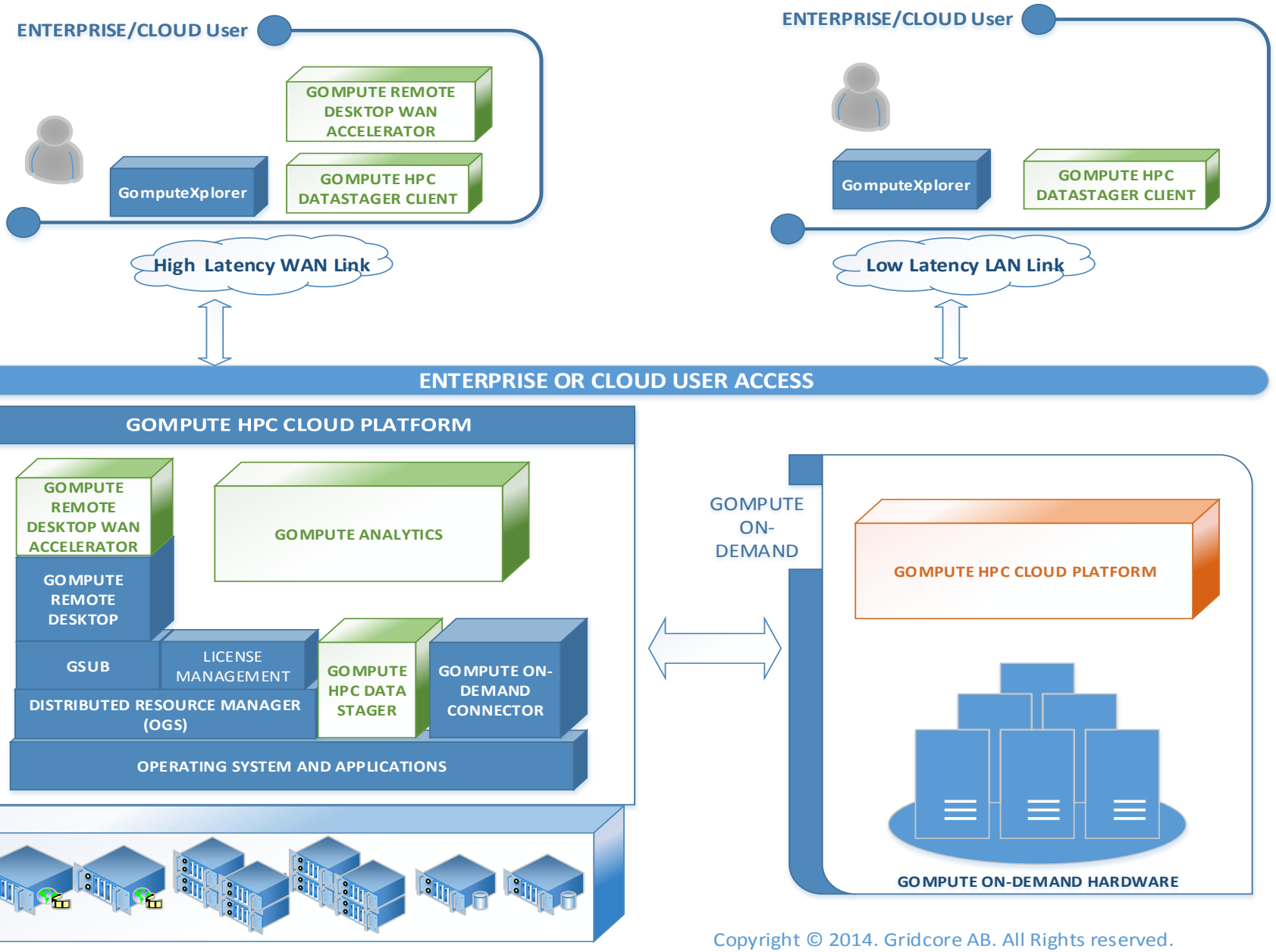
Gompute Solutions



Gompute Solutions

GOMPUTE Explorer

GOMPUTE Explorer

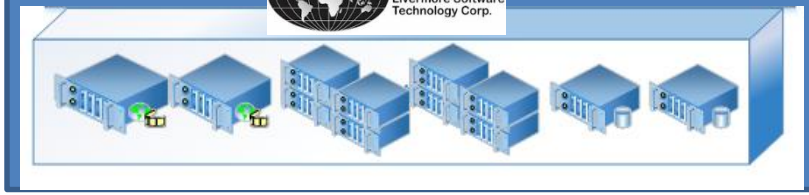
High Latency!

GOMPUTE A GRIDCORE COMPANY Enterprise Cloud

Remote Desktop
File Transfer
Queue system

Analytics
Remote Desktop Accelerator
Data Stager

LSTC Livermore Software Technology Corp.



On demand connector

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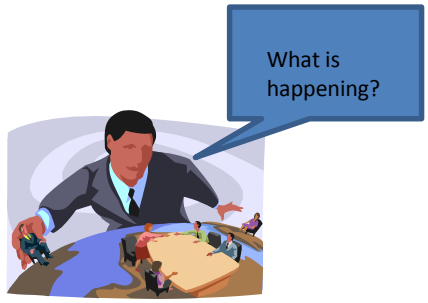
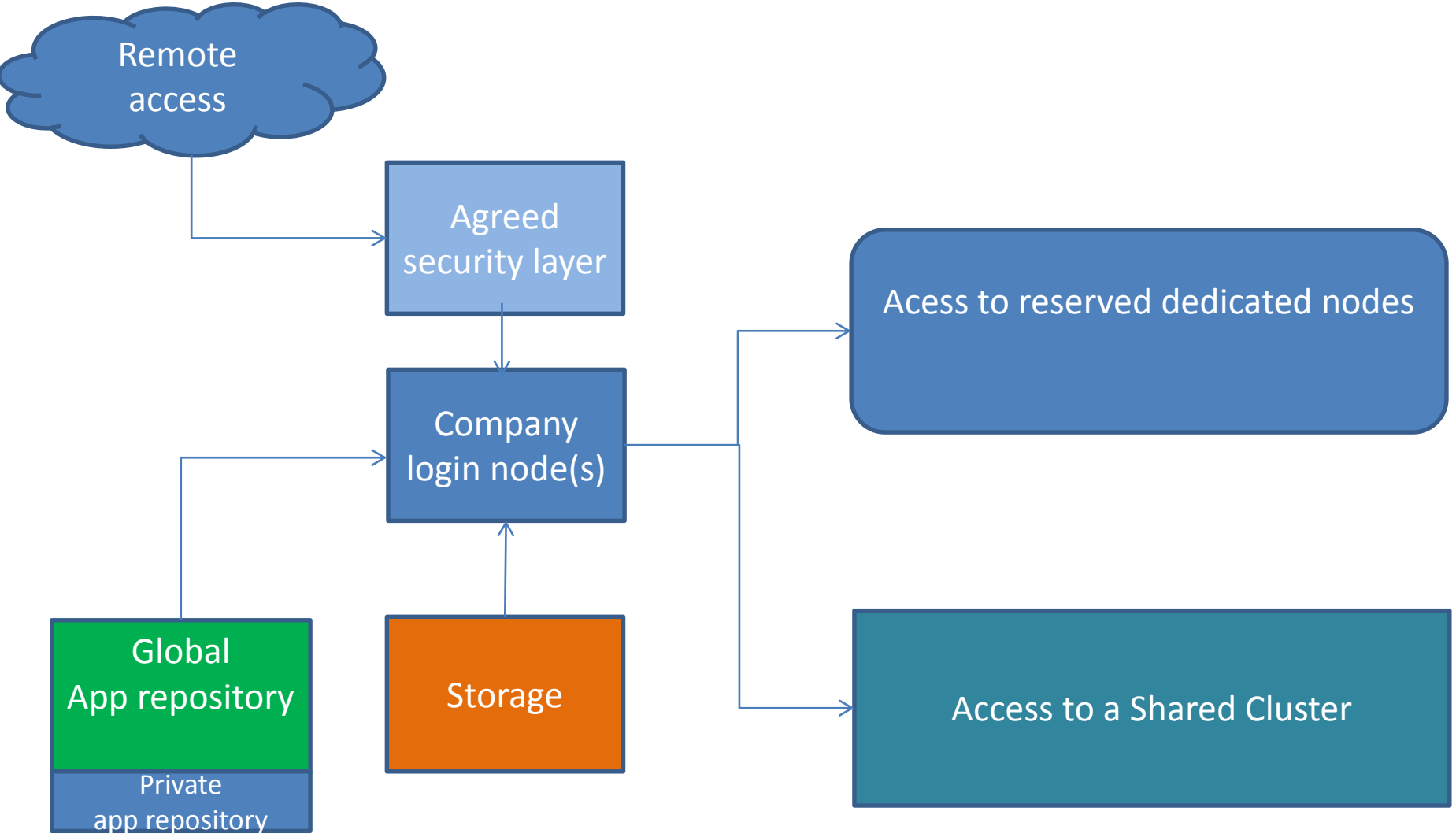


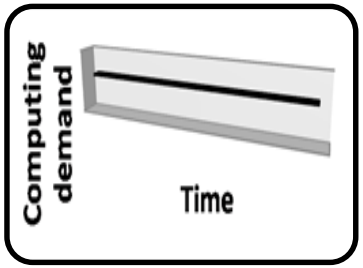
Basic Configuration of Gompute On-Demand



Start Up Scenario

Symptoms:

- Fear of investing/ Low finance capabilities
- Unknown Future requirements
- Needs Flexibility
- No IT / HPC knowledge
- Unknow potencial



- No RISK
- Can expand per project. End customer takes the cost.
- Use from anywhere.
- Who buys a cluster if you do not know how fast can it be? 48h TRY & BUY

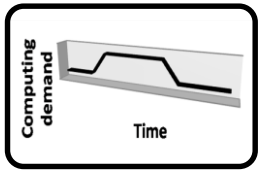
What our customers say

*... during the simulations I've reduced the screen outoput (we do that in our local hardware) and then the improvement was astonishing: We jumped from 12 to 22 iteration/min, so we went from **2,31** iter/min on our servers to **22** iter/min on your supercomputing center, **so the result is 10 times faster when using 4 times the initial amount of cores.***

Medium-size Enterprise

Symptomps:

- Investment revision
- Outsourcing / Lack of internal capacity
- Peaks of workload
- Performance of the engineers.



- Efficient investment: 32% saving vs Buying
- One Engineer can handle several projects at a time.
- Extra resources can avoid interdepartamental discussions.
- New machines are faster.

What our customers say

After the testing Gompute VS the HPC center we are currently using, the conclusion is that the simulations are **2.7 times faster** with the same amount of cores.

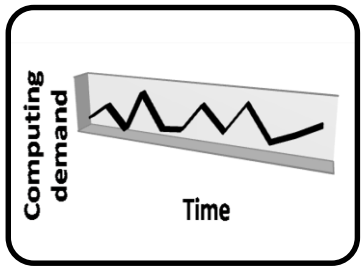
Large enterprise Scenario

Synthomps:

- Need to consolidate resources
- Large & Immediate projects
- Security is the main priority.

→

- Gompute Enterprise Cloud.
- Fully own HW
- Fast Delivery
- Collaboration between teams, with direct support.



Available Hardware

Options:

- Shared cluster: Several users in the cluster, so might be a queue to start

Cost: Account fee + Credit of Compute core hours.

- Private cluster: Private nodes, fully available during contract time. Can be customized.

Cost: Account fee + Reservation (Cores / time)

Nodes: Free test available.

C1, C2, C3: CFD nodes
F1, F2: FEM nodes. More memory & scratch.
G: Graphical node, specially for Pre-post. For ”light” jobs (like setting up Boundary conditions) is not required.

DYNA Licensing

- 1- Gompute hosts the license
- 2- Customer license server connected to Gompute
- 3- Dyna Cloud License can be used. (T&C Apply)

Advantages

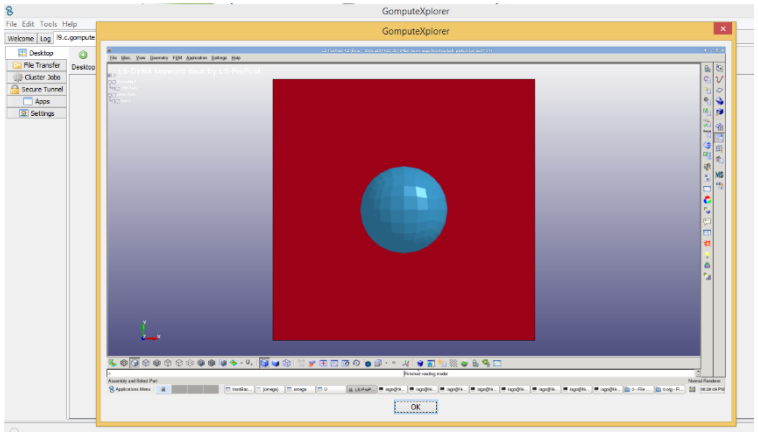
- 1- Flexibility
- 2- No investment risks
- 3- Can be quoted on project basis
- 4- Customer gets capacity to grow immediately
- 5- No SW and HW maintenance
- 6- 14 years collaborating with LSTC / DYNAMore.
- 7- Free test.
- 8- HPC support
- 9- Fully owned, bare metal HW, Infiniband, in one single data center.
- 10- Secure solution
- 11- Quickly expansion of resources to fit the demand.

Gompute & LSTC:

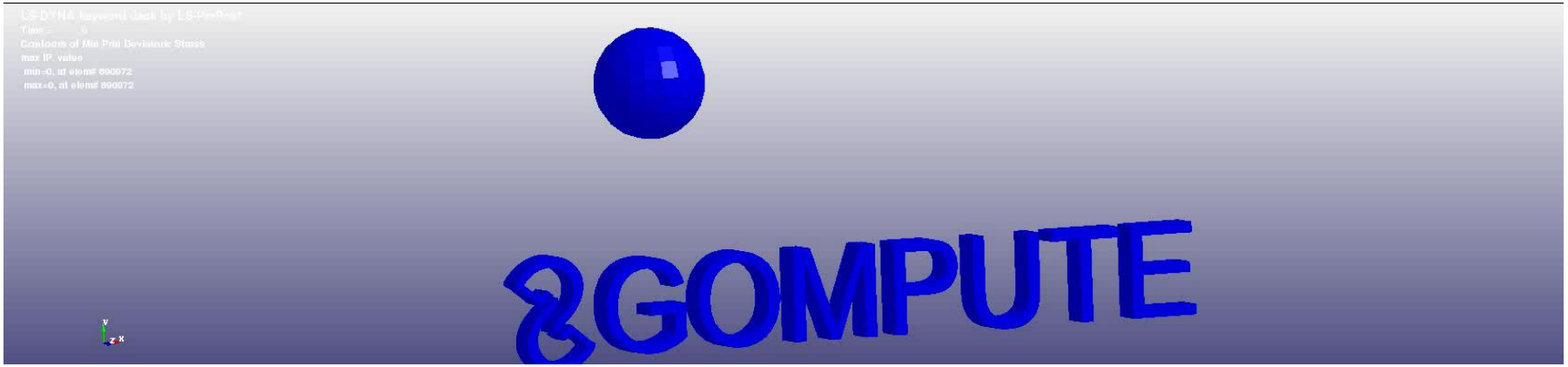
A Joint Solution for Customer Simulation Intensity Growth on the GOMPUTE HPC Cloud Platform

LSTC and Gompute: Business partners since 2002 working together to provide a stable, flexible and scalable HPC environment for their users.

- Ready to Use: LS-Dyna is installed, maintained and ready to use.
- Quick expansion of resources - the user can get access to 1000s of cores.
- Flexible licensing solution
- Faster ROI: By accessing more resources, users can run larger projects in less time with no big investment in hardware and get access to experienced HPC support.



Contact



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