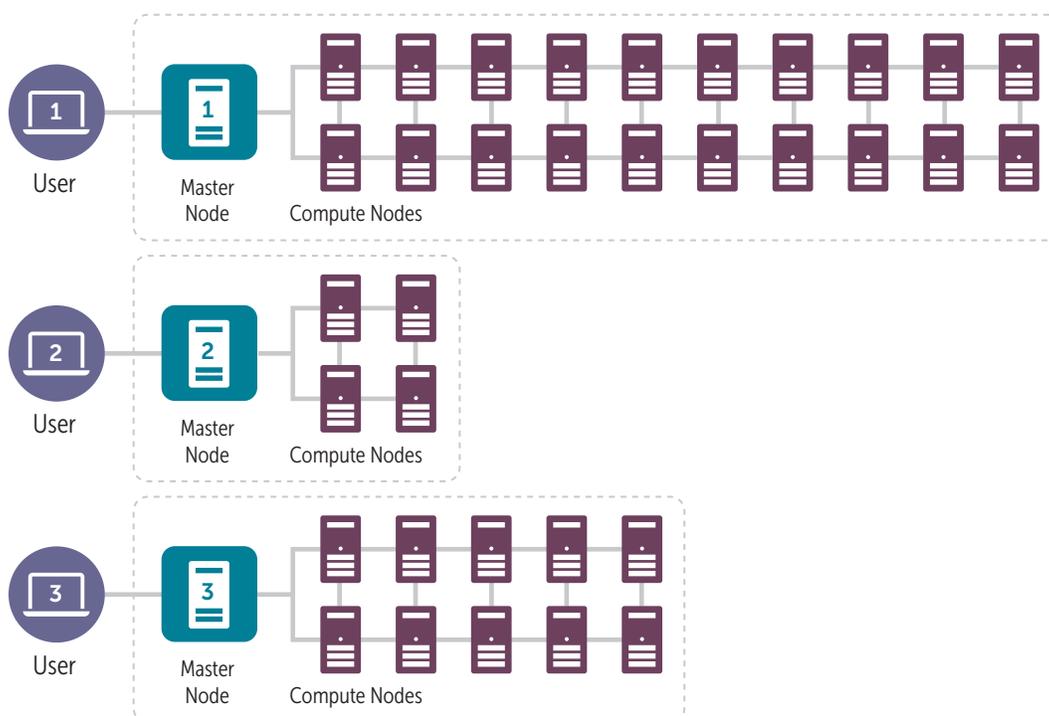# CERTARA

Burstable Compute Grid

Computationally-intensive software applications, like those used in PK/PD modeling and simulation, require significant compute power to process models. Pharmacometricians using powerful modeling applications, eg, Phoenix® NLME™, NONMEM®, or R, using a dual- or quad-core local computer, experience significant delays in analyzing complex models when the calculations are performed in a series. Depending on the size and complexity of the job, models can take 8 hours to days before you are able to analyze the results.

Power Up Your Models with a Cloud-based Compute Grid

Contrary to a personal computer where compute power is limited by the number of cores available, a grid uses many computers that work in parallel to complete a job in a "divide and conquer" manner, thus adding significant compute power for processing demanding applications, eg, PK/PD models which require substantial number-crunching. The result? Computational time is significantly decreased with the combination of additional cores and parallel execution. And cloud computing provides the additional benefit of on-demand access to the grid anytime and anywhere.

The Burstable Compute Grid provides an affordable and efficient way to significantly reduce model-fitting time:

- Eliminates sharing and long queues

- Reduces model processing times by over 95%

- Eliminates IT support— we do all the work and get you up and running in 48 hours

- Minimizes costs by activating cores only when needed

Burstable Compute Grid—Your Own Grid on Your Own Time

The Burstable Compute Grid, using Amazon Web Services (AWS) Cloud, provides a cost effective and secure way to access up to 1,800 cores in the cloud with just one click, significantly accelerating model runs. Model minimizations that took days can now be completed in hours, or even minutes, affordably and without IT support.

- **Efficient:** no sharing or queues—personal grid is dedicated to you and accessed securely on-demand only when you need it

- **Burstable:** activates the minimal number of cores needed for the job, and "bursts" when more cores are needed for larger jobs or when another job is submitted

- **Economical:** cost is accrued only when the grid is in use and the cores are active, ie, only the time it takes to process a job

Choose a Grid Size Based on Your Compute Power Needs

Tier	Cores	Application
1	72	Great for PK/PD modelers working with non-clinical data
2	144	Enough power for any non-clinical PK/PD model and supports early clinical development activities
3	360	Powerful enough for in-depth population PK/PD models with moderate to large datasets
4	1,080	Large capacity for advanced modelers involved in large meta analyses or complex PK/PD analyses on multiple projects
5	1,800	Our most powerful grid that can handle *any* analysis or dataset you encounter—for advanced modelers who need the best!

Connect to the Burstable Compute Grid with the Most Demanding Modeling Applications

Using Phoenix NLME? Parallel processing for NLME jobs is plug and play—access the grid directly from NLME on your desktop. Using NONMEM or R? No problem—access the grid using command-line access tools, such as PuTTY and secure file transfer, eg, WinSCP.

We Do the Work for You—Get Up and Running in 48 Hours

Our Burstable Compute Grid is the only turnkey solution available. Other grid providers require IT to get an internal, AWS, or Azure grid set up and require on-going support. We do all the work for you by managing the AWS grid—within two days you can be sending jobs to your grid, with no need for IT support.

Management, Tracking, and Cloud Optimization Tools

Collaborate is a web-based platform that provides a central access point to a variety of Certara applications and tools. The Burstable Compute Grid can be accessed through Collaborate, providing convenient access to tools that can be used for grid monitoring and budget management and tracking.

- Monitor job status

- View grid usage in real-time

- Set and track monthly spend budgets at the user or organizational level

- Turn on optional auto-shutdown when spend meets limit

About Certara

Certara is a leading provider of decision support technology and consulting services for optimizing drug development and improving health outcomes. Certara's solutions, which span the drug development and patient care lifecycle, help increase the probability of regulatory and commercial success by using the most scientifically advanced modeling and simulation technologies and regulatory strategies. Its clients include hundreds of global biopharmaceutical companies, leading academic institutions and key regulatory agencies.

For more information visit www.certara.com or email sales@certara.com.