



# HIGH PERFORMANCE COMPUTING SERVICES

The High-performance computing (HPC) uses clusters and supercomputers to solve advanced computational problems in science and industry.

The Theoretical and Computational Chemistry Reference Network (XRQTC) brings together more than two hundred researchers from twenty different institutions recognized by the Catalan administration. They receive support and services from a high-qualified team of sysadmins specializing in High-Performance computing, clustering and High-Availability. These services are now being offered to institutions and technological centres with high performance computing needs.

## Why the XRQTC?

The Theoretical Chemistry studies the structures of matter and properties of solid bodies from the atomic and molecular standpoint. The computational Chemistry uses these results implemented as software programs. This software is computationally intensive and requires high performance computing. HPC computing is typically achieved in the form of cost-effective computing clusters and the support of system administrators specialized in this area. The HPC administrators from the Computational Chemistry Reference Network have an excellent background and experience in carrying out successful installation and deployment projects and maintenance services.

## Services

The group of HPC administrators offer a set of services aimed at external customers, who have high-performance computing needs. This includes the following:

- Advising and consultancy on the cluster configuration
- Cluster Installation and Configuration
- Support for Cluster Management
- Remote Cluster Administration
- Users Support
- Training for Cluster users
- Training for local Administrators

## High-performance computing services benefits

- If your institution needs a cluster, we can help you to deploy it. We can analyse your software performance across several architectures, in order to suggest the most appropriate hardware solution for your needs.
- If your institution already owns a cluster, our experts can help you to fine tune it by installing, configuring and optimizing the necessary applications and troubleshooting any technical issues that might occur.
- You may lower cluster operational costs by externalizing management services and leaving it in hands of our experts.