

One Chapel. Petaflops of Possibility.

Believe it or not, the world's most beautiful supercomputer site is nestled in a deconsecrated chapel on the outskirts of Barcelona occupying a gorgeous estate built in 1860. MareNostrum is the fastest supercomputer in the world using the latest Intel processors. Best of all, it was designed and built onsite to fit into the Torre Girona chapel's vaulting Romanesque Revival space without taking a jackhammer to its awe-inspiring 1940's walls.

The designers settled in for the yearlong project for the one-of-a-kind machine ... the fourth to be built in the chapel.

The cluster of parts were designed in such a way for easy installation into the chapel. They arrived in a special sequence so that the build could start at the chapel's front and end at the only equipment access door at the rear. Piece by piece the puzzle was assembled as engineers carefully connected the system's 10,000 cables and checked its 42,000 memory DIMMs.

On June 16, 2017, with one of the world's most powerful supercomputers finally assembled and online, Lenovo turned its day-to-day operations over to the Barcelona Supercomputing Center.

Today, MareNostrum's 9.96 Petaflop per second (*peak performance*) helps elite researchers and the experts at the Barcelona Supercomputing Center solve some of the Earth's biggest problems including fighting cancer, better climate predictions, earthquake simulation and designing smarter cities. It is also made available to the national and international scientific community.

MareNostrum runs SUSE Linux 11 SP3. It occupies a size less than half a basketball court.

A petaflop is the ability of a computer to do one quadrillion floating point operations per second (*FLOPS*).

If you would like to submit a question or suggest a topic for future column consideration, please email your questions or comments to: info.vpcuc@gmail.com

Our monthly meetings take place on the second Tuesday of every month, September through June. We meet at 7:00 PM in the cafeteria of the Schubert Centre.

We start off every meeting with a 'TANSQ' session. Come check us out!

Call Betty at 250-309-1590 or Grace at 250-549-4318 for more information.