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# SEVERALNINES AIMS FOR THE STARS WITH EGO BOOST

## EUROPEAN GRAVITATIONAL OBSERVATORY (EGO)

- Industry: Research
- Location: Italy

EGO is one of the world's leading research structures devoted to the study of gravitational waves. EGO hosts the Virgo experiment, a project involving about 300 scientists spread across 19 laboratories in France, Italy, Poland, the Netherlands and Hungary. The observatory also collaborates with a wider network of scientists based in the United States and Asia. Gravitational waves were predicted one century ago by Einstein's theory of General Relativity but they have never been observed directly, although there is indirect evidence of their existence. The direct detection of gravitational waves, the main goal of experiments such as Virgo, will solve one of the long-standing puzzles of Einstein's theory and provide a new powerful tool to observe the Universe.

Research on gravitational waves creates at least 6 Terabytes of new data every day. The data gathered is used for scientific research into gravitational waves and to help the development of the cutting-edge technologies used by Virgo, which span various fields, from mechanics to optics and electronics.

The scale of data created on a daily basis provides challenges for EGO's IT team which has to ensure research data is not lost either when at rest or in transfer. The IT team needed a robust technology which could work with various open and proprietary IT environments, and around-the-clock access to database performance and management expertise.

After a review process, Severalnines was selected by EGO in January 2015 after the team read a series of strong online reviews on how Severalnines' ClusterControl platform manages MySQL database clusters. EGO tested ClusterControl on its Scientific Linux platform, based on

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the popular Red Hat system, during the trial period. The ease of installation during testing was another reason why EGO's IT team decided to work with Severalnines beyond the trial period.

With ClusterControl, EGO can manage and monitor all database clusters on a single dashboard and reduce time spent on backing-up research data. Severalnines helped EGO to focus on new business initiatives such as improving the sharing and presentation of research data on various graphical formats.

Giuseppe Di Biase, Systems Administrator at EGO, said: “Data is so important to the work EGO carries out on a daily basis. Without it, important scientific discoveries based on gravitational waves may be missed. The Severalnines team offered excellent, personalised support and gave us practical advice on how to enhance our systems. I still learn something new every time I talk to Severalnines, they have made my job easier .”

Vinay Joosery, Severalnines CEO said: “ We are very proud at Severalnines to support the leading edge of science with the most advanced database management software. The scale of EGO's operation is tremendous and it relies on stable and robust technology, we look forward to taking this relationship to another world.”