

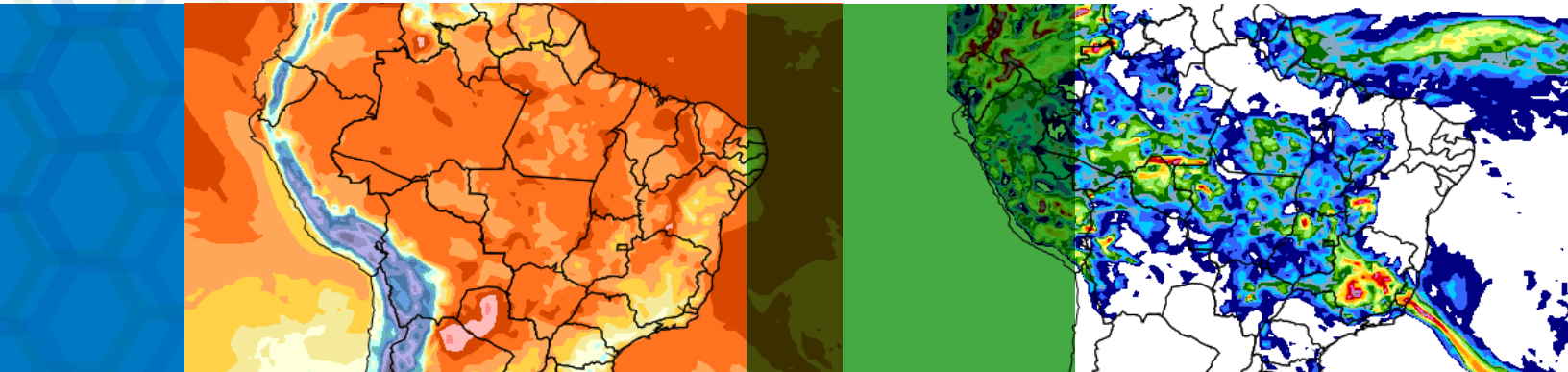
INMET Expands its Computational Capacity: Gains Speed and Resolution

Key Facts

Organization:
National
Institute of
Meteorology

Location:
Brazil

Application:
Life Sciences



Introduction

Established in 1909, the National Meteorological Institute (INMET) is the official government organization for providing meteorological and climatological services in Brazil. It has ten remote branches throughout the country.

INMET's mission is to provide weather information to the Brazilian society. This includes having a constructive influence on the decision-making process and contributing to the sustainable development of the country. They achieve this through monitoring, analyzing and predicting weather and climate, which are based on applied research, and working in partnerships and sharing knowledge, with an emphasis on practical and reliable results.

A Loyal SGI® Customer

INMET's first SGI solution was an SGI® Origin® 2400 with 32 processors that was installed in 2000. Since then all of their solutions have been SGI. These include an Origin 3800, Altix® 4700, Altix XE 1300, Altix ICE™ 8400, SGI ICE X, other small configurations, and its most recent acquisition, an SGI UV™ 2000. INMET considers SGI products to be very reliable in the field of meteorological modeling.

All SGI solutions are purchased with the idea of fulfilling the demand imposed by the numerical models in relation to weather forecasting. INMET is always looking for a complete solution of hardware and software, and are happy with the support provided by SGI.

Configuration

- SGI UV 2000 with 42 compute blades
- 672 cores of Intel® Xeon® processor E5-4640 running at 2.4GHz
- 2.69TB of coherent shared memory

INMET mainly uses their SGI UV 2000 for High Performance Computing (HPC) in the area of numerical weather forecasting. They run two regional meteorological model systems originally from Germany. One is a High Resolution Model (HRM) and the other is Consortium for Small-Scale Modeling (COSMO).

INMET wanted to be able to increase the model resolution while reducing the processing time. The UV 2000 enables them to increase the mesh resolution over South America from 10x10 km to 7x7 km and add a 2.8x2.8km grid resolution over selected regions in Brazil. This gives them much more information on weather behavior and enhances their forecasting products.

"We considered SGI products as very reliable equipment in the field of weather modeling," says José Mauro de Rezende, Deputy Director and Coordinator for Communication Systems at INMET. "The UV 2000 saves us time to run other instances on our model processing and allows us to anticipate some future work and development. This was a great help. We choose UV 2000 considering it to play in the next technological jump."

Mauro de Rezende went on to say, “The customization work was always done in partnership and full support from SGI Engineering. There was no chance of us doing it alone. SGI participated in the project at the very moment we started until all of the applications were running and operational. I’m confident that SGI understands our business and contributes to our success.”

About INMET

The National Institute of Meteorology (INMET) was created by Decree 7672 of President Nereu de Azevedo, on November 18, 1909, with the name of Directorate of Meteorology and Astronomy, organ of the National Observatory, linked to the Ministry of Agriculture, Industry and Commerce. Throughout its history, the Institute has gone through several names. It wasn’t until Law 8490 of November 19, 1992 was passed that it became known as the the National Institute of Meteorology, an agency under direct administration of the Ministry of Agriculture, Livestock and Supply.

About SGI

SGI, the trusted leader in high performance computing (HPC), is focused on helping customers solve their most demanding business and technology challenges by delivering technical computing, Big Data Analytics, cloud computing, and petascale storage solutions that accelerate time to discovery, innovation, and profitability.

For more information please contact an SGI sales representative at 1-800-800-7441 or visit www.sgi.com/contactus.

Global Sales and Support: sgi.com/global

