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# History

- Last Updated (15.03.2011)

1991

Signature of the agreement between the Regional Ministry of Education and University Regulation and CSIC to create the Supercomputer Center of Galicia (CESGA).

1992

The CESGA building is set up. We solve the acquisition of the first contest vector supercomputer Fujitsu VP 2400 and all associated computer equipment.

1993

Cesga was inaugurated in May 1993, when it started providing high tech services to researchers. Such services were provided through the use of the first vector supercomputer installed in Galicia (Fujitsu VP2400) and through access to the Science and Technology Network of Galicia (RECETGA). The latter is a low capacity network which allows access to CESGA from the seven University Campuses and from the four research centers belonging to the Higher Council for Scientific Research (CSIC) established in Galicia. In order to have access to other networks, a 64 Kbps connection to ARTIX (today's RedIRIS) was available.

CESGA reaches the first position among all the scientific computing centers in Spain in terms of capacity and is ranked 146th out of the 500 most powerful centers in the world.

CESGA reports to the Regional Ministry of Education and University Regulation and to CSIC.

1995

In November 1995, Cesga signed a collaboration agreement with the General Secretariat for Communications of the Regional Government of Galicia. Through this agreement RECETGA's traffic came to be supported by AGI (Galicia's Information Highway). It is through this agreement that RECETGA becomes a high capacity network. First competitive research project with the Science and Technology Interdepartmental Commission about

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climate change.

1996

CESGA participates in its first project with the European Union in the field of computer applications in Mechanical Engineering (HIPSIA).

1997

Acquisition of new supercomputer units to bring the technologies of the center up to date: parallel vector Fujitsu VPP300E/6 and parallel scalar AP3000.

1998

CESGA undergoes a process of technological update. The VP2400 supercomputer is removed from service and substituted by a Fujitsu VPP300E/6 (parallel-vector technology) and a Fujitsu AP3000 (distributed memory parallel-scalar technology).

CESGA reports to Government of Galicia's R&D General Secretary.

1999

A new scientific computer server with SMP architecture is installed: a SUN Microsystems HPC 4500. As a complementary service, a Data Storage System including a robotic cartridge-tape library is installed to facilitate the safeguarding of user data.

Center's software is updated to overcome "the year 2000" effect.

2000

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RECETGA undergoes a technological update. A Gigabit-Ethernet central commuter is installed.

An Information and Knowledge Society Research Unit is created (Unidade SIC). This research unit is aimed to promote, develop and participate in projects pertaining to Information and Knowledge Society from an R&D standpoint.

The University Library Network of Galicia (BUGALICIA) starts operating.

2001

Installation of a new scientific computer server, a self-made PC farm called the Galician Virtual Supercomputer(SVG).

Creation of the Centre of Competence in electronic Commerce in Galicia.

Cesga participates in the European CROSSGRID project.

The e-commerce Leveragin Center of Galicia starts operating.

2002

Two new architectures start providing simulation services for users: a cluster of SMP machines, Compaq HPC320 and a Compaq-built Beowulf Cluster.

CESGA modifies its articles of association by including activities in the field of the Knowledge Society.

Limited Company CESGA promotes the creation of CESGA Foundation.

Storage system STK is expanded up to 51TB.

2003

CESGA reports now to Consellería de Innovación, Industria e Comercio's R&D General Management.

Connection from RECETGA to RedIRIS2 through three lines of 2.5 Gbps and one line of 622 Mbps.

The Neutral Internet Exchange of Galicia (GALNIX) starts operating.

Acquisition of the Supercomputer HP Superdome with 128 Itanium processors. Units VPP300E and AP3000 are removed.

CESGA and CESCO (Supercomputer Center of Catalunya) implement an operative GRID.

CESGA celebrates its 10th anniversary.

CESGA is again ranked first among all the Spanish scientific computing centers, and 227th among the 500 most powerful ones in the world.

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2004

CESGA Foundation starts its activities.  
Supercomputer HP SUPERDOME starts working.  
CESGA Foundation participates in EU projects: EGEE and TORGA.es  
S.A.X. CESGA participates in EU projects: MRI, e-AQUA, CIC-Commerce.  
The SVG is expanded with 80 additional CPU's.  
CESGA goes beyond the barrier of the aggregate TERAFLIPS.  
Storage system is expanded:  
Tape Robot: 95TB  
Disk Sub-system: 40TB

The first AccessGrid (AG) room of Galicia is installed.  
Setting up of fiber optics in RECETGA to connect the three universities of Galicia to 1 Gbps.

2005

The first seven cooperative work rooms (AG) of the Iberian Peninsula are opened. This infrastructure is included in the TORGA.net project, financed by the EU.  
CESGA Foundation participates in EU projects: EGEE, TORGA.net.  
S.A.X. CESGA participates in EU projects: e-AQUA, CIC-commerce EFELCREN, e-Hospital and ICHNOS.  
Presentation of the first study about the state of Computer Simulation in Galicia.  
The project of dynamization of the Open Source in Galicia is started as a result of the cooperation agreement signed with the Directorate General for Industry and Information Society Promotion of the Regional Ministry of Innovation and Promotion.  
Organization of the First e-science Conference in Spain.  
CESGA signs a cooperation agreement with BSC-CNS.  
CESGA implements the continuous services improvement system.  
Acquisition of the new Gigarouter for Recetga's central node installed at CESGA.

2006

The study about the situation of e-learning in Galicia is presented.  
The Open Source initiative "mancomun.org" starts operating.  
The HP-INTEL-CESGA cooperation agreement is signed.  
CESGA building undergoes adaptation repairs to lodge the new supercomputer Finis Terrae.  
CESGA participates in the project CONSOLIDER "MATHEMATICA"  
CESGA participates in the european projects:  
EGEEII  
ICHNOS  
EFELCREN  
e-Hospital  
int.eu.grid  
Torga.net

Bandwidth and the number of lines used to connect RECETGA to RedIRIS are broadened: five lines of 2.5 Gbps each are created.  
CESGA participates in the Technological Platforms INES and Galician Tecnological Platform-TIC.

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2007

Reform of CESGA's facilities to house Finis Terrae Supercomputer.  
Finis Terrae supercomputer installed. CESGA reaches a peak performance of 20 TFLOPS.  
Plan to make CESGA evolve into a Computational Science Research Centre.  
Participation en european projects:  
EGEE II e EGEE III  
Int.eu.grid  
NextCESGA  
e-Hospital  
EFELCREN  
PARENTS  
YES  
SmartLM

IBERGRID Conference organised by CESGA

2008

Finis Terrae started its production on April 1st , becoming the N° 100 in the supercomputing TOP500.

Recognition of CESGA as Spanish National Singular Scientific Technological Installation (ICTS) by the Spanish Ministry for Science and Innovation.

Call for CESGA's contest for the design and construction of the new CESGA building.  
CESGA's users and researchers solve computational challenges (FEKETE and HEMCUVE), using Finis Terrae.

CESGA and the Motorway Traffic General Directorate (DGT) signed a collaboration agreement to share their respective telecomm and high performance computing infrastructures.

Red.es, the Spanish Ministry for Science and Innovation, the Galician Regional Government, and CESGA signed a collaboration agreement to interconnect the science and technology networks of Portugal, Galicia (RECETGA), and Spain (RedIRIS).

The Spanish Ministry for Science and Innovation, the Regional Government of Galicia, and CESGA signed a collaboration agreement to build CESGA's new facilities; the "Constelación" Building.

CESGA was endowed with the 2008 APPLUS+ Price to the best implemented and managed quality system in a non profit organization.

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CESGA's users and researchers solved four computational challenges in the first month of Finis Terrae testing:

the open problem of FEKETE's Points in Mathematics, which has been opened for over a century ([http://www.cesga.es/File/eventos/conferencias/POINT\\_DISTRIBUTION\\_ON\\_BIDIMENSIONAL\\_SPHERE.pdf](http://www.cesga.es/File/eventos/conferencias/POINT_DISTRIBUTION_ON_BIDIMENSIONAL_SPHERE.pdf)).

the second largest problem in electromagnetism with 35.000.000 unknowns using the HEMCUVE++ application. These researchers beat their own mark in the summer solving a problem with 150.000.000 unknowns. (<http://www.cesga.es/File/eventos/conferencias/HEMCUVE.pdf>).

the problem of phase separation in magnetic materials ([http://www.cesga.es/File/eventos/conferencias/PHASE\\_SEPARATION.pdf](http://www.cesga.es/File/eventos/conferencias/PHASE_SEPARATION.pdf)).

understanding the most massive stars in the universe through the use of genetic algorithms ([http://www.cesga.es/File/eventos/conferencias/GENETIC\\_ALGORITHMS.pdf](http://www.cesga.es/File/eventos/conferencias/GENETIC_ALGORITHMS.pdf)).

CESGA was an active partner in the following European Projects:

EGEE III  
EELA II  
NextCESGA  
e-Hospital  
EFELCREN  
PARENTS  
YES  
SmartLM  
EVITA  
ICTeachers  
BEinGRID

2009

Update and certification of the new version ISO: ISO9001:2008.

Start of implementation: UNE166.002.

The amount of computing hours underwent a 57% increase, reaching over 15'7 million CPU hours.

The Galician Regional Ministry of Economy and Industry resolved to grant the necessary funding for CESGA to acquire the land for the construction of CESGA's new facilities.

Both the Basic and the Detailed blueprints for CESGA's new building were produced.

First public open call for computational challenges to be executed at CESGA was launched.

The first edition of CESGA's Computational Science Summer School was celebrated.

Researchers from the University of Vigo and Extremadura performed an electromagnetism simulation with over 500 million unknowns using the code HEMCUVE on Finis Terrae.

The first "Parga Pondal" researcher was hired.

A technology transfer contract agreement with the company ALDABA.

CESGA, together with researchers from the Universities of Vigo and Extremadura receive the PRACE AWARD

2009.

CESGA, together with researchers from the University of Vigo and the University of Extremadura receive the Prize Itanium Solution Award.

The project eHospital taken part by the CESGA and the University of Santiago de Compostela receive the prize Grundtvig of the EC.

Technology Refresh RECETGA; implementation of dark fiber. In december 2009 is initiated field activities for laying dark fiber sections: Tui-Vigo-Pontevedra-Santiago.

CESGA was an active partner in the following European Projects:

EGEE III  
EELA II  
NextCESGA

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PARENTS  
YES  
SmartLM  
EVITA  
ICTeachers  
IPLUS  
ICHNOS