Large Scale Distributed Computing Systems

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Generic goal of the stream

Research methods and tools to deal with computing systems interacting at the wide area level, namely, systems integrating a large number of stationary and mobile computers.
Specific goals of the stream

- Large-Scale and Mobile Computing CSCW Software Systems
- Data management for Large-Scale and Mobile Computing Environments
- Overlay Networks and P2P systems
- Security Issues for Peer Group-oriented and P2P scenarios

Stream staff coordinates

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Scientific results 1999 - 2001

- 1 completed PhD dissertation (2 ongoing)
- 2 completed MSc dissertations
- 3 national funded projects, 1 not funded, 1 international cooperation starting
- 7 international refereed conference publications
- 4 national refereed conference publications

1999 – 2001 Self-evaluation

Positive

- 3 funded projects
- Results published in main-stream international conferences

To improve

- International cooperation
- Dimension - small group - few graduate students
- Too many research directions
Scientific goals for 2002-04

Present new solutions in the following areas:

- Mobile workflow management
  - Session and coordination services
  - MobiWorkFlow project
- Data management for large-scale and mobile systems
  - Support for programmers, databases and web-based apps
  - DataBricks and Mobisnap projects
- Wide-area communication protocols
  - DEEDS Platform
  - P2P systems, data dissemination, collaboration
- Security models for workgroups
  - Support group-collaboration and communication
  - Integrated in all other projects

Estimated results for 2002-04

- Successfully terminate the 3 ongoing projects
- Consolidate and expand cooperation with other research groups
- 2 PhD thesis
- 4 to 6 MSc thesis
- 2 new funded research projects
Scientific results 2002 / 2003

- 1 completed PhD dissertation (1 ongoing, 1 more starting next year)
- 3 completed MSc dissertations (1 more will finish next quarter)
- the same 3 national funded projects, 1 new international cooperation
- 5 international refereed conference publications
- 1 national refereed conference publications

Scientific results 1999 - 2003

- 2 completed PhD dissertations (1 ongoing, 1 starting)
- 5 completed MSc dissertations
- 3 national funded projects, 1 not funded, 1 international cooperation
- 12 international refereed conference publications
- 5 national refereed conference publications
2002 – 2003 Self-evaluation

**Positive:**
- 3 funded projects
- Results published in main-stream international conferences
- International cooperation is improving
- Most permanent members got PhDs

**To improve:**
- Dimension - small group - few graduate students
- Too many research directions

From 2000 up to now

The team has been engaged in the following funded research projects:

- **Databricks** – Extending the data management part of DAgora (with the Programming Languages team of CITI). This project ends next year.

- **MobiSnap** – Data management solutions for mobile databases (partially with Universidade do Minho, Portugal). This project ends next year.

- **Collaboration with the ICE3 project** (Marc Shapiro - Microsoft Research, UK). Ongoing.

- **DEEDS** – Active Overlay Network for Event-dissemination (only locally funded). Ongoing.