

Parallelizing OMNeT++ Simulations using Xgrid

Robin Seggelmann, Irene Rüngeler, Michael Tüxen, Erwin P. Rathgeb

Content



- Motivation
- Introduction to Xgrid
- Using Xgrid for OMNeT++ simulations
- Measurement results
- Conclusion

Motivation



- SCTP Development
- Frequently large simulations necessary
- OMNeT++ simulations are single-threaded
- Built-in Parsim is too particular

Introduction to Xgrid





Introduction to Xgrid





Task is a single command, e.g. /usr/bin/cal 3 2009

Job contains tasks

Batch file describes Jobs with multiple Tasks

Using Xgrid for OMNeT++ simulations



- Every simulation run is a task
- Extension for OMNeT++
- Batch files can include files
- Agents can access NFS shares

Measurement results





Measurement results

Conclusion

- Xgrid is easy to set up (if you are using Macs)
- Performance increase almost linear
- Integration in an upcoming OMNeT++