



Grid Planning in BaBar

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WP8 Working Meeting
Barcelona May 13, 2003



Infrastructure

- **Current status:**
 - CE, SE, WN @ SLAC, IN2P3, INFN @ Ferrara, RAL
 - RB @ Imperial College
 - RC @ Manchester
 - VO @ Manchester
- **Being included now:**
 - CE, SE, WB @ FZK (Karlsruhe)
 - Will start with EDG 1.4.x
 - Then move to V 2.x and deploy full scale analyses
 - RB @ CNAF and Catania
- **Testing EDG V1.4.8 installation CE, SE and WN under RH7.3 (recipe given by ccin2p3 grid team)**
 - Really critical at SLAC especially if v 2.0 is late
- **SLAC is working on security issues**
 - **Implementing Virtual Smart Card**
 - Define an implementation strategy
 - Understand interactions between different sites

The BaBar Grid as of May 2003



CE
SE
WN



VO
RC



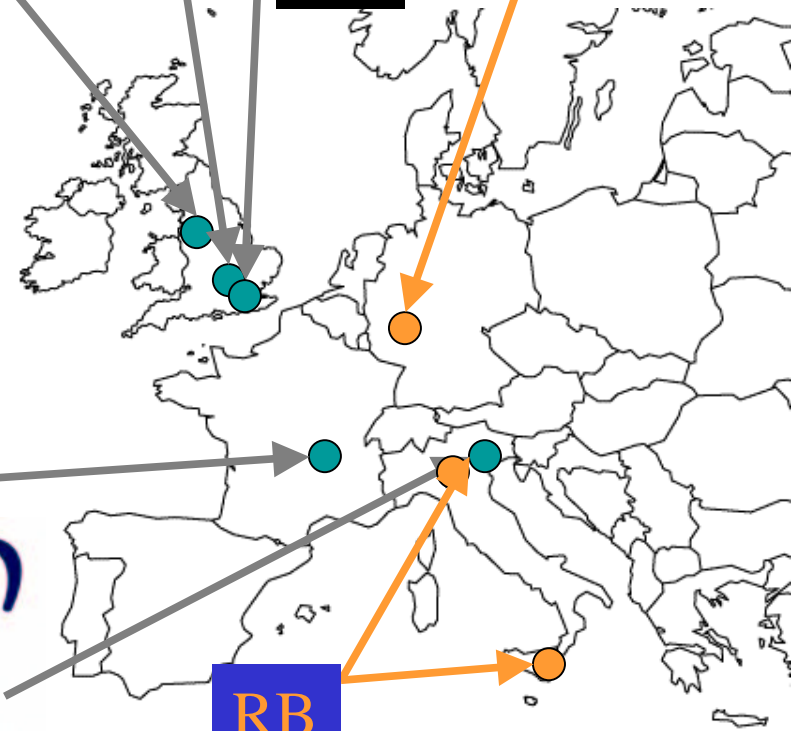
CE
SE
WN

Imperial College
London

RB



CE
SE
WN



CE
SE
WN

IN2P3
INSTITUT NATIONAL DE PHYSIQUE NUC
ET DE PHYSIQUE DES PARTIC

CE SE WN



RB



Analysis

- **Successful test of a simple analysis use case on the Grid using EDG V 1.4.x**
 - **Prepare executable locally**
 - **Copy executable to SE and register to RC**
 - **Prepare JDL to select CE with a close SE where the executable is available**
 - **Copy executable to WN**
 - **RUN – Produce NTuple**
 - **Copy Ntuple to close SE and register to RC**
 - **Fully generic system able to discover resources at running time**
- **In parallel: develop system to automatically split jobs according to data availability**
 - **Will merge with analysis application**
- **Want to integrate RLS in analysis applications as soon as possible**
- **Will run one or several selected real and full scale analyses in the coming months**
 - **Only way to find where the problems are**
 - **Full scale analysis:**
 - **10K jobs (~8 CPU hours)**
 - **~500 GB output (N-tuples)**
- **Need to understand how to handle auxiliary data files which are currently handled by the BaBar release structure**



Monte-Carlo Production

- Successful test of a simple MC use case on the Grid using EDG V 1.4.x
- Working on MooseApp, the application for Montecarlo production used in Babar, in order to create a suitable RPM for the EDG environment.

Current status in Ferrara:

EDG V.1_4_11 standard

(UI+CE+SE+3WN) +queue with 3WN

based on RH7.3 (BaBar software need RH7.3);

UI----->RB----->queue

SLAC (USA)

IC (UK)

grid0.fe.infn.it:2119/jobmanager-pbs-wn73

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CNAF (ITALY)

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FERRARA (ITALY)

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User Interface

- Ferrara is testing Genius in the BaBar context
- Working with Roberto Barbera and Alberto Falzone to define
 - Preliminary services
 - Interfaces to the BaBar environment
- Good cooperation
 - Important for Genius developers, as BaBar is a running experiment
- Curious to see how Genius can be used in a Grid analysis environment
- BaBar book-keeping system being redefined
 - Need to define an interface between book-keeping and grid tools.
 - Understand relationship between book-keeping and user interface