

#### Database Recovery Tests with Oracle Streams

Eva Dafonte Perez Gordon D. Brown

3D Workshop CERN, Geneva 13/14<sup>th</sup> September 2006

> Gordon D. Brown e-Science, RAL

1

14 September 2006



# **Objectives**

- Why?
  - Simulate real scenarios of failure at one or more sites
  - Actually perform tests so we know what to do
  - Document recovery so we all can share
  - Get a feel for time constraints, DBA effort
- What?
  - List scenarios of failure
  - Test scenarios between sites

#### 🔆 🗞 Erid PP

14 September 2006



• Scenario 1

Point-in-time recovery on the destination database

- Simulates "crash" on destination
- Could be lost file/disk
- Will use previous backup (full or part) to get back to a point in time



Gordon D. Brown e-Science, RAL

3



• Scenario 2

Tier-1 database crashes and all data is lost

- Simulates complete disaster
- Related to scenario 1



14 September 2006

Gordon D. Brown e-Science, RAL

Λ



• Scenario 3

Data was 'missed' between Tier-0 and Tier-1

Does not correspond with the Streams definition





• Scenario 4

Point-in-time recovery on the source database

- Tier-0 database crashes and is restored to a point-intime \*before\* destination (Tier-1) sites
- Increased complexity





- Scenario 5
  - Point-in-time recovery on the source and on the destination databases
  - Same point-in-time
  - Simulates potential human error





• Scenario 6

Tablespace point-in-time recovery

- Export object from source and import at destination
- Streams propagation starts afterwards



Gordon D. Brown e-Science, RAL

8