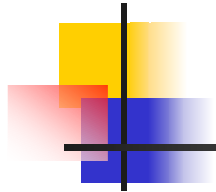# DAIS WG Topic
Composite Requests
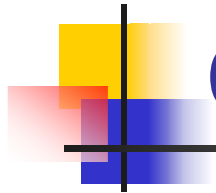
Telcon Call

22nd April 2004

Dave.pearson@oracle.com
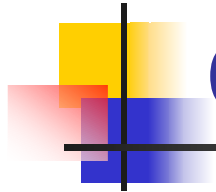
Composite Requests

General Comments

- Provides ability to define logical units of work
  - No control action should be required within unit of work
  - Cases exist where:
    - Request failure is not important
    - Completion of every operation essential
    - Sequential execution not essential
    - Sequential execution is essential
- Scalability/performance technique
  - Reduce number of responses
  - Reduce network traffic

Composite Requests

Administrative tasks
- Batch of DDL statements
  - Create/Delete set of tables, views, or storage objects as part/whole of a new DB or DB copy
  - Create set of users, Grant/Revoke privileges to a set of users
- Schema modification
  - Lock, alter, release
- Create/Delete indexes
  - Lock (for primary keys)
  - Batch of create/delete index statements
  - Release
- Backup/Restore data

Composite Requests
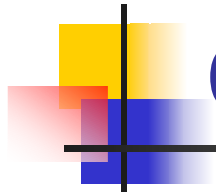
Batched pipeline operations

- Bulk data load into one or more table
    - Create/Delete set of tables
    - Perform validation/normalisation
    - Create indexes
- User controlled partial/whole copy of a database
    - Create new tables locally or remote
    - Lock tables
    - Extract data from tables
    - (Move data)
    - Insert data into DB copy
    - (Grant privileges)
    - Create indexes

Composite Requests

Batched pipeline operations
- User controlled data derivation
  - Set transaction
  - Query to extract data
  - Create derived data (e.g. summarisation, transformation)
  - Insert data into existing/new table
  - (Create indexes)
- Data analysis (e.g. Data warehousing)
  - Query to extract sample data
  - Insert into new/existing table
  - Create indexes
  - Perform analysis

Composite Requests

Batched pipeline operations

- Bulk update
  - Set transaction
  - Update/Delete data
- Optimised Distributed Query
  - Query to extract local/remote data
  - Move data to local/remote site
  - (Transform data)
  - Insert data into temporary table
  - Perform multi-table query at local/remote site
  - Deliver results
- Optimised distributed query may be one stage in a multi-stage pipeline