Recent operational issues concerning the streams replication to BNL

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During the past weeks the streams operations focus on:

- Integration of new database schemas within the streams replication to be distributed to BNL, coordinated at Tier (0).

- CPU July 2011 patches at downstream database, coordinated at Tier (0).

  - Replication to BNL and other sites had to be resynchronized reported past week on this meeting.

  - This problem led to run **consistency checks** between Tier 0 **(Source)** DB and BNL **(Destination)** DB.

Tier 0 IT-DB DBA reported (09/06/11) a discrepancy in a table between the source and the BNL destination database.

- Instantiation problem, possible cause of this discrepancy.

As a consequence the apply process skipped transactions.
- ~0.5% rows were missing out of the affected table.
- ~0.2% of the tables of this schema were affected.
- Period of the missing rows identified.

Posterior local analysis

Affected table corresponded to one of 9 tables reported in T1SC100225
- In the past Oracle provided a internal procedure run at **Source** database to send a copy of the streams data Dictionary to the destination site. In addition the affected schemas and tables were resynchronized. Detailed report can be found in here.

Last week the affected table was re-syncronized (09/06/11)
- Took less than 5 minutes to repopulate the table.
- A temporary table and a db link was used to copy missing rows (streams replication were disabled).
- This procedure was done by IT-DB DBA at Tier 0.

Verification of applied transactions in the affected table.
- Contrary to the past, inserts in this table could be instantaneously monitored as there were transactions been applied to this table.

Summary

- 0.107% of rows were missing from the entire database replica.

- 1 table "**silently**" affected by 2010 instantiation problem.

Possible topics for future discussion

Periodic consistency checks.

  -Home made? Who's home?

  -Out of the box, 11G new features?

  -Policy

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