LFC for LHCb – Streams replication to CNAF

1. Initialization Parameters relevant to Streams and Patches.
The following required init.ora parameters must be set appropriately for each participating Streams site:

- global_names: this parameter has to be set to TRUE
- parallel_max_servers: each capture process and apply process may use multiple parallel execution servers (current value + 3*capture proc + 3*apply proc)
- streams_pool_size: recommended >200M, better performance between 600M and 900M
- _job_queue_interval: scan rate interval in seconds of job queue, this parameter has to be set to 1.
- ensure parameter db_domain is not empty
- database global name must include the domain
- database services must include the domain

The following patches related to Streams bugs must be applied:

- Patch 5089630 CORE DUMP KFNCINITSLAVEPOOL WHEN RUNNING STREAMS
- Patch 5359321 STREAMS CAPTURE CRASH: ORA-600 KRVXALFS: NON UNIQUE ENTRIES IN]

An intervention needs to be scheduled for the databases being involved (RAC for LHCb applications: lhcbr, and first Tier1 site: CNAF).

2. Streams setup scripts preparation.

- Develop the scripts to be run at the destination and source databases
- Create the Streams administrator user.

3. Export and import of the objects from the original database to the source and destination databases in the Streams environment.

- Export the objects from the original database
- Import the objects into the source database (RAC for LHCb applications - lhcbr)
- Import the objects into the destination database (first Tier1 site: CNAF)

All the databases involved should have the same objects copy since the export is run until the Streams setup is completed.

4. Streams setup.
Run the scripts prepared previously. Some of the steps can be done in parallel during the export and import phase.
Enable the Streams replication.
Time: 2 hours