Enhance Tools For PostgreSQL

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Introduction

pg_reorg
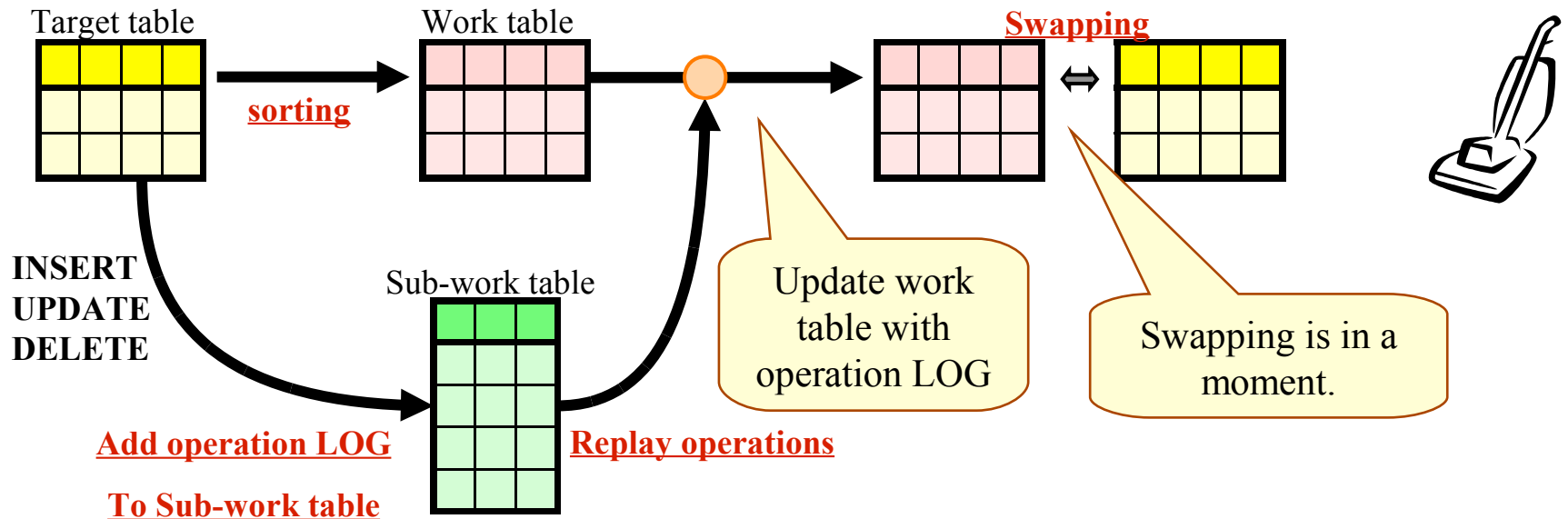**re-organizing tool**

pg_rman
ONLINE backup tool

pglesslog
WAL compress and
decompress tool

NTT OSS Center has developed these tools, and made them to Open Source Software. So I want many people to try them. These tools make you to manage PostgreSQL easily !

pg_reorg

- pg_reorg can re-organize table with very short locks.
  - PostgreSQL has "CLUSTER" command to
    re-organize table, but it needs to lock the table in
    mode "EXCLUSIVE LOCK" for a long time.

Target table   Work table   **Swapping**

sorting

INSERT
UPDATE
DELETE

Sub-work table

Add operation LOG

To Sub-work table

Replay operations

Update work
table with
operation LOG
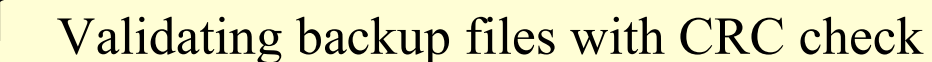
Swapping is in a
moment.

pg_rman

- pg_rman is online backup using very simply
  - online backup is too complex for novice DBAs.
    - Considering tablespace
    - Creating recovery.conf
    - Managin some periodical backup … etc
  - pg_rman is easy to use like pg_dump.

```
$ pg_ctl start
$ pg_rman backup --backup-mode=full --with-serverlog
$ pg_rman validate       Validating backup files with CRC check
$ pg_ctl stop -m immediate
$ pg_rman restore        Restore with 1 command also
$ pg_ctl start
```
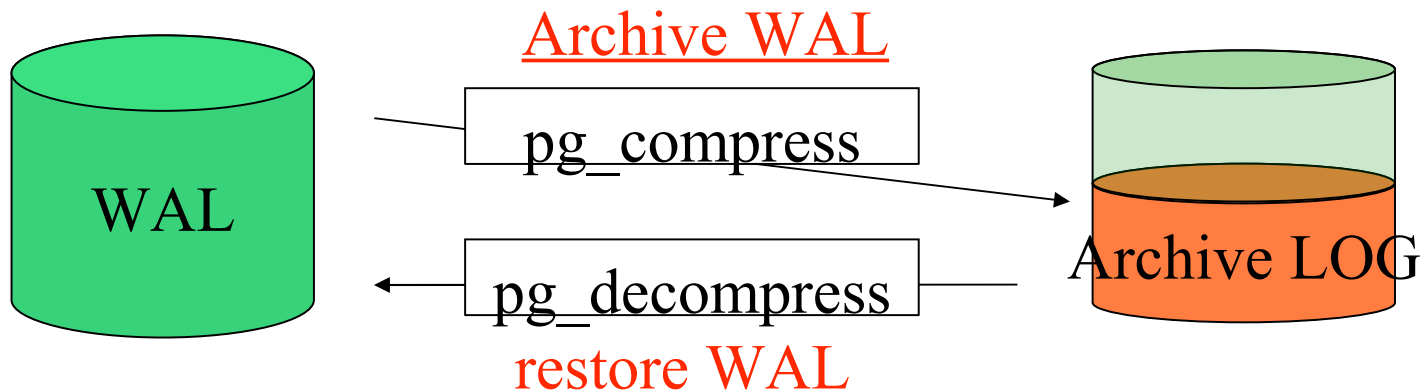
- VERY SIMPLE !

pglesslog

- pglesslog is a set of tools to reduce the size of PostgreSQL Archive log.
  - Some cases, we need Archive LOG long time
- pg_compress / pg_decompress
  - pg_compress removes "full-page-image" from WAL to reduce the size
  - pg_decompress rebuild WAL to replay it.

Archive WAL

WAL

pg_compress

Archive LOG

pg_decompress

restore WAL

Let's try them !

- Thank you.
  - pg_reorg
    - http://reorg.projects.postgresql.org/index.html
  - pg_rman
    - http://code.google.com/p/pg-rman/
  - pglesslog
    - http://pglesslog.projects.postgresql.org/

- To Be Continued with above WEB Pages …
  ACCESS !