# WHY DATA BASE AS A SERVICE WILL BE A BREAKAWAY TECHNOLOGY AT SOCIÉTÉ GÉNÉRALE

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SOCIETE GENERALE

Investment Banking, Private Banking and Asset Management

## WHO SAID ?

"A **pessimist** sees the **difficulty in every opportunity**;

an **optimist** sees the **opportunity in every difficulty**."

# WHO SAID ?

« Like philosopher Jagger said, you can't always get what you want »

# DB refresh is a necessary evil

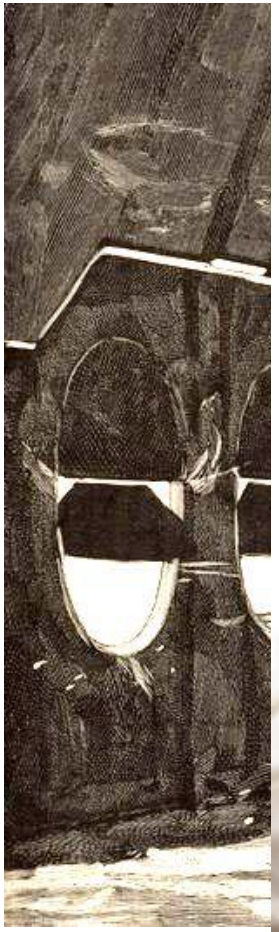
#70000 full DB refresh/year

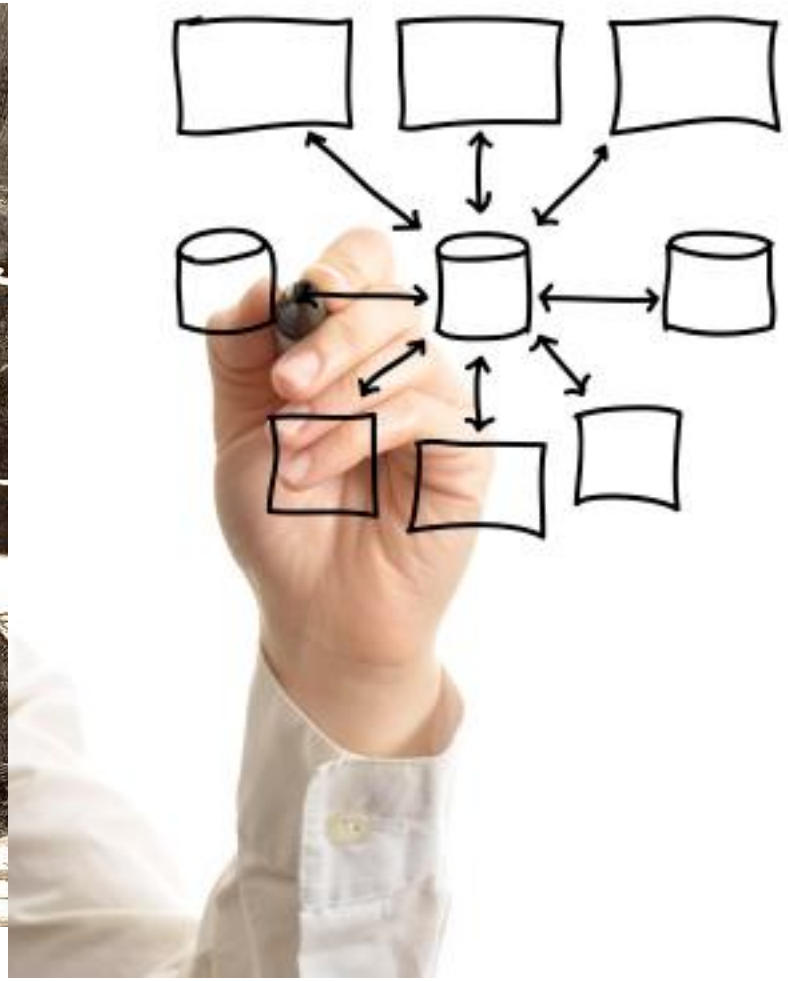
#14 ZB/year

83% of complaints are DB refresh-related

10% are on demand, 50% of complaints

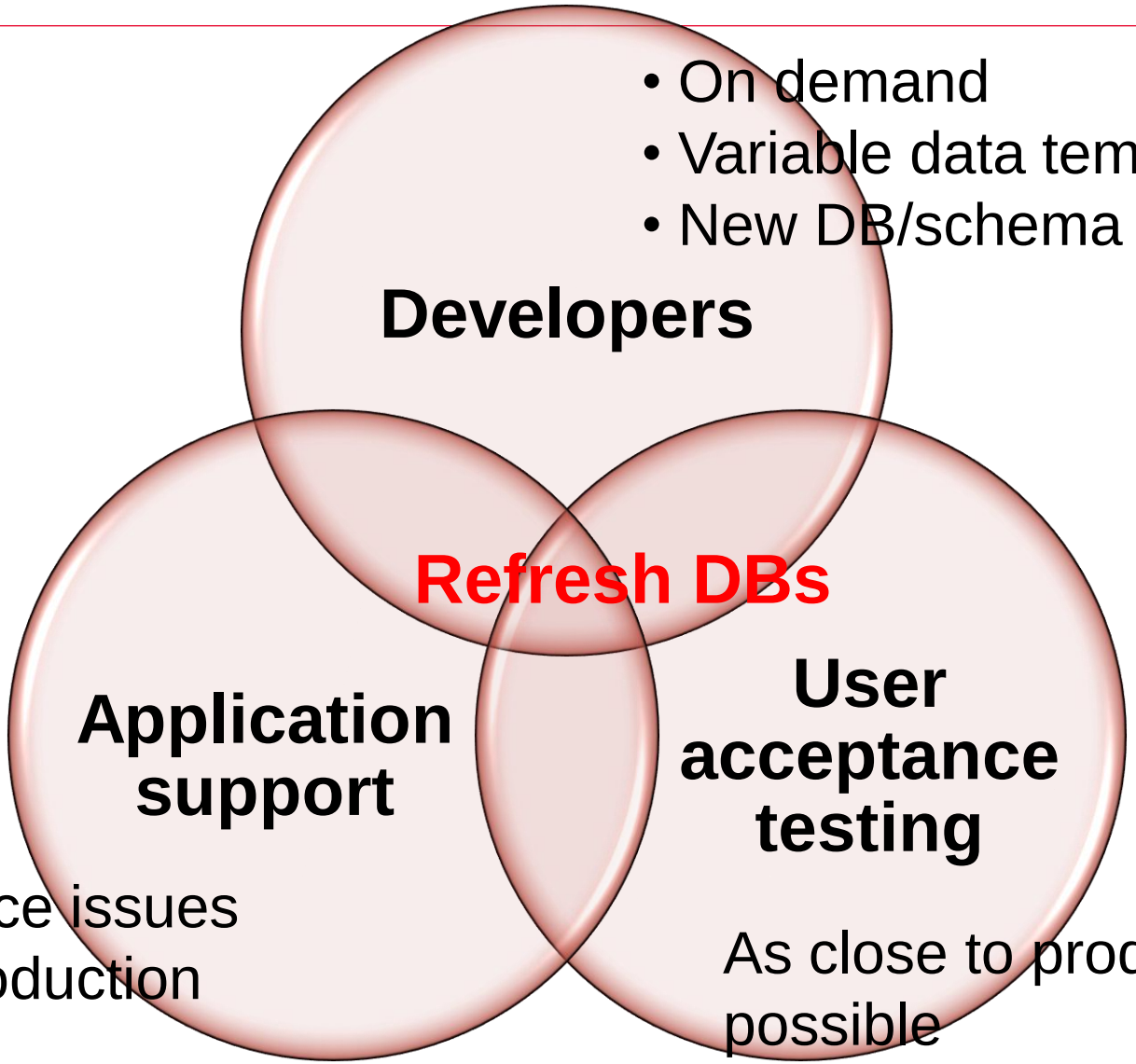
# WHAT IS A DBA USEFUL TO ?





# GONE OFF RAIL

# DATA PROVISIONING REQUIREMENTS

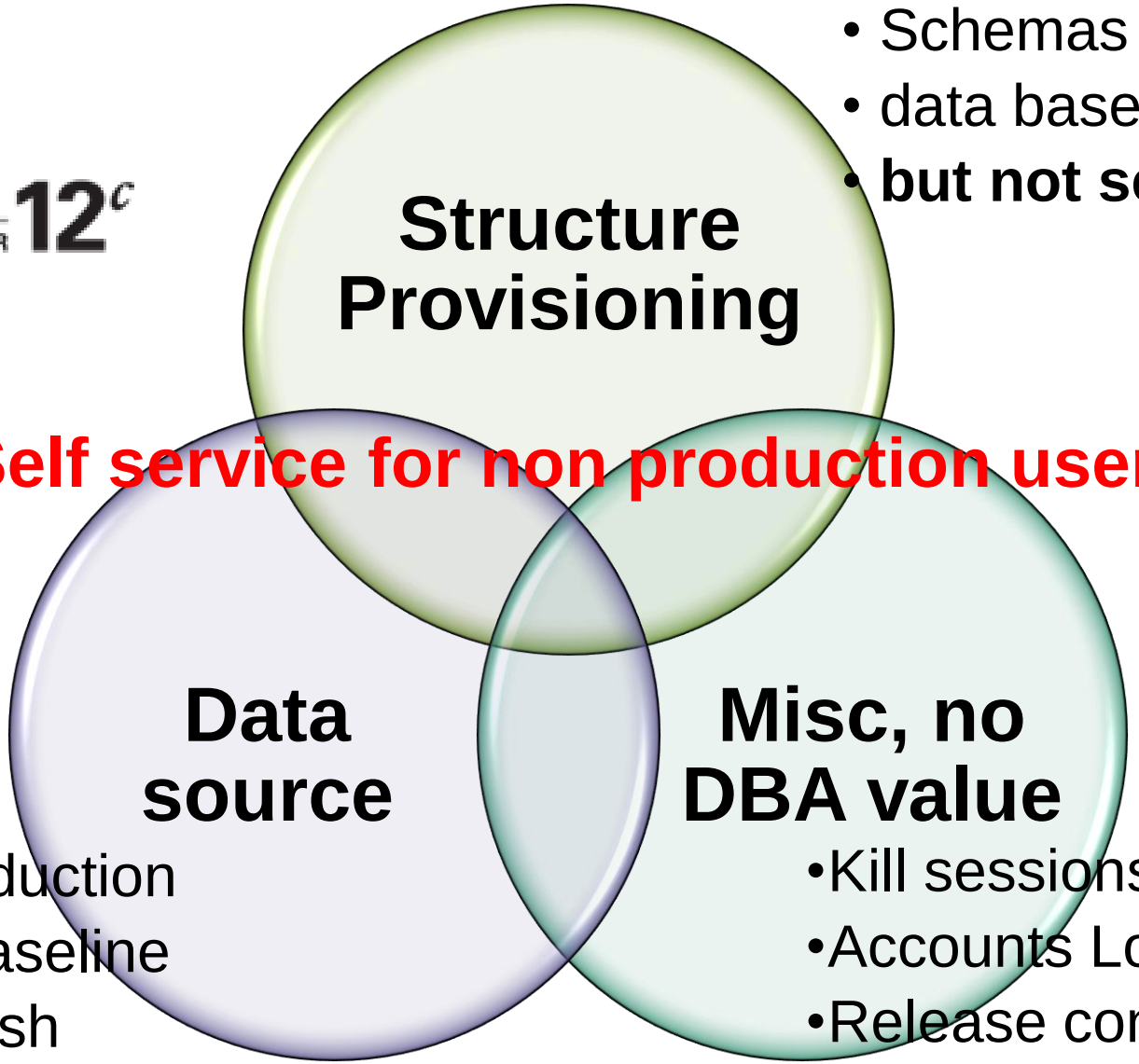



- On demand
- Variable data temperature
- New DB/schema provisioning

- Reproduce issues
- Copy production

As close to production as possible

# SERVICE CATALOG/ DBAAS SALIENT FEATURES




- Schemas
- data bases
- **but not servers**

**Self service for non production users**

- From production
- From a baseline
- Fast refresh

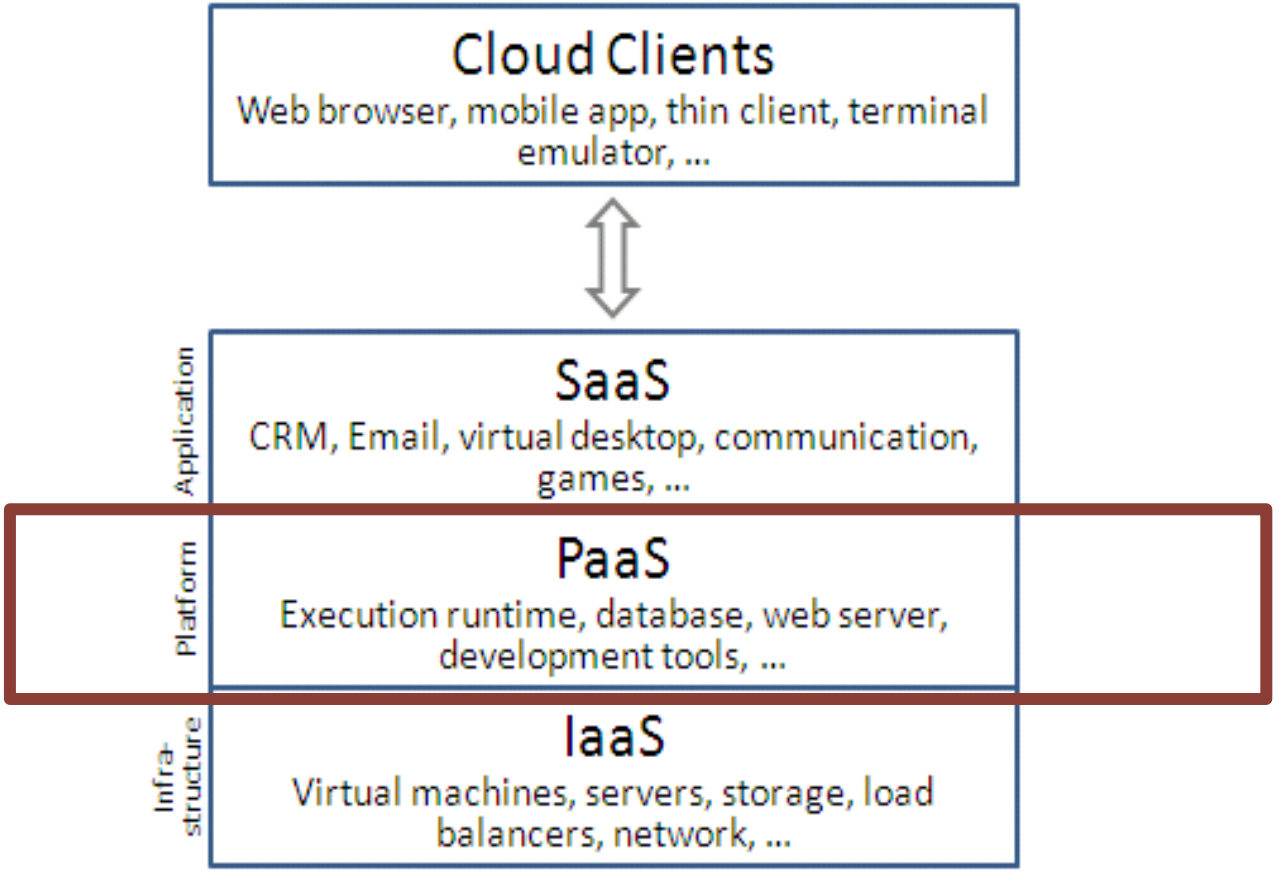
- Kill sessions
- Accounts Locks/unlocks
- Release control

# NEW SERVICE REQUIREMENTS

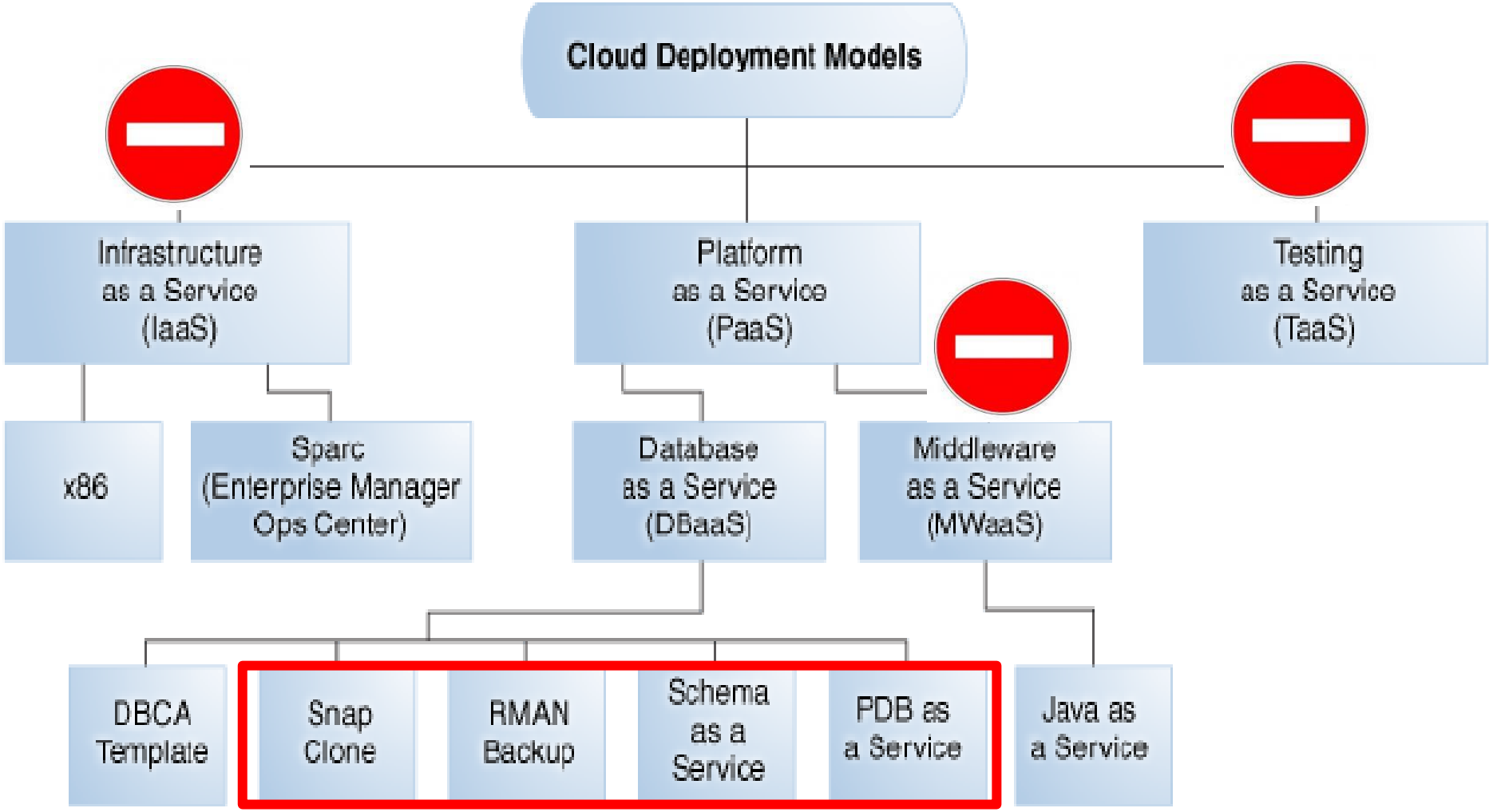
- **XaaS: Anything As A service**
- **Agile & DevOps**

# ANYTHING AS A SERVICE

DBaaS



# OEM 12C CLOUD MANAGEMENT MAPPING



« Our highest priority is to satisfy the customer through early and **continuous delivery** of valuable software »

1st principle of the Agile Manifesto

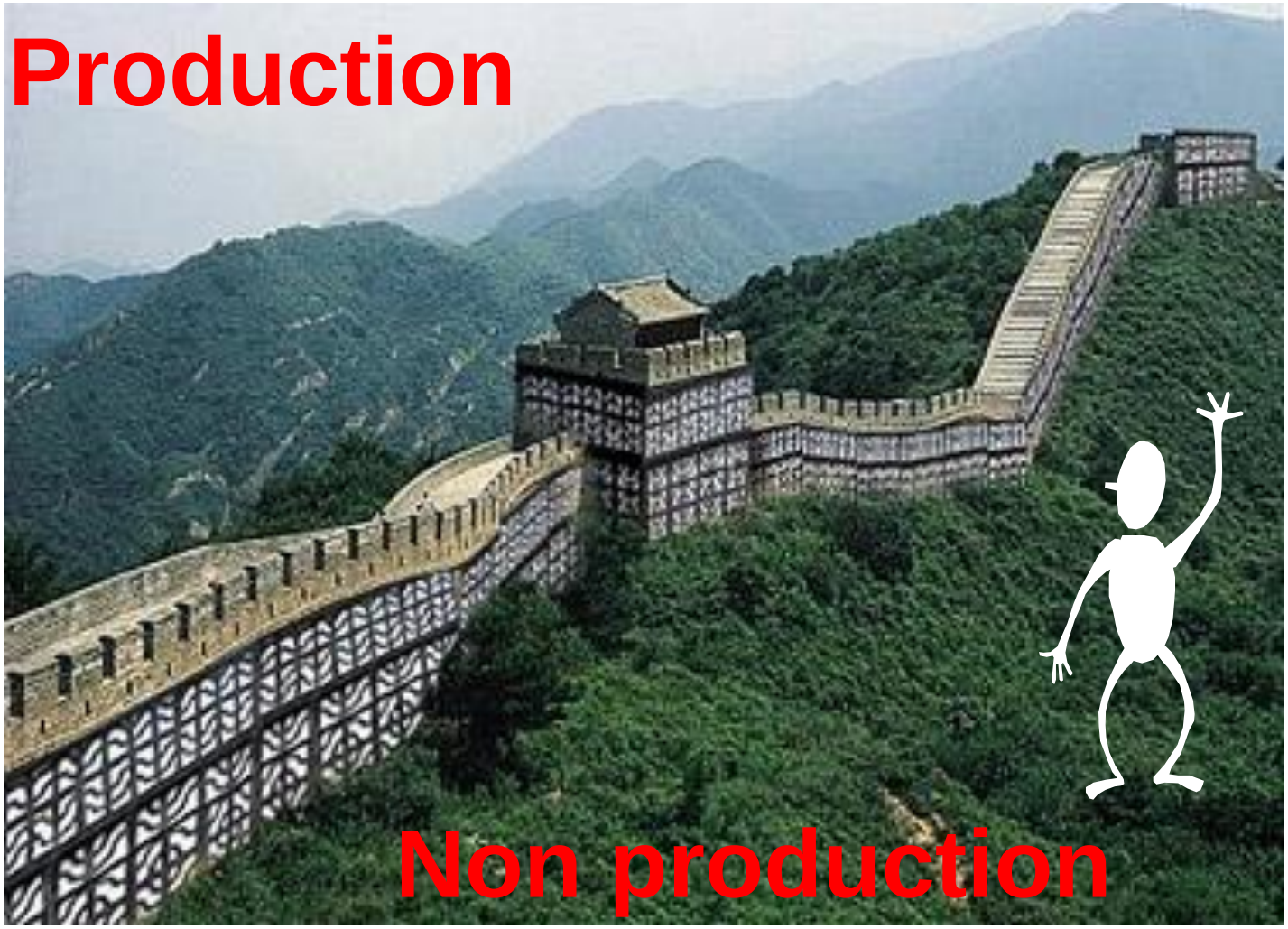
- **APIs based infrastructure management**

```
curl -k -i \  -X POST \ …
-d {
"zone": "/em/cloud/dbaas/zone/FDAxx ",
"params": {"username": "chris",..}' \
https://mysrv.fr.world.socgen:7799
 /em/cloud/dbaas/dbplatformtemplate/0173...BC
```

- **Service catalog exposed via APIs**

# DATA FLOWS

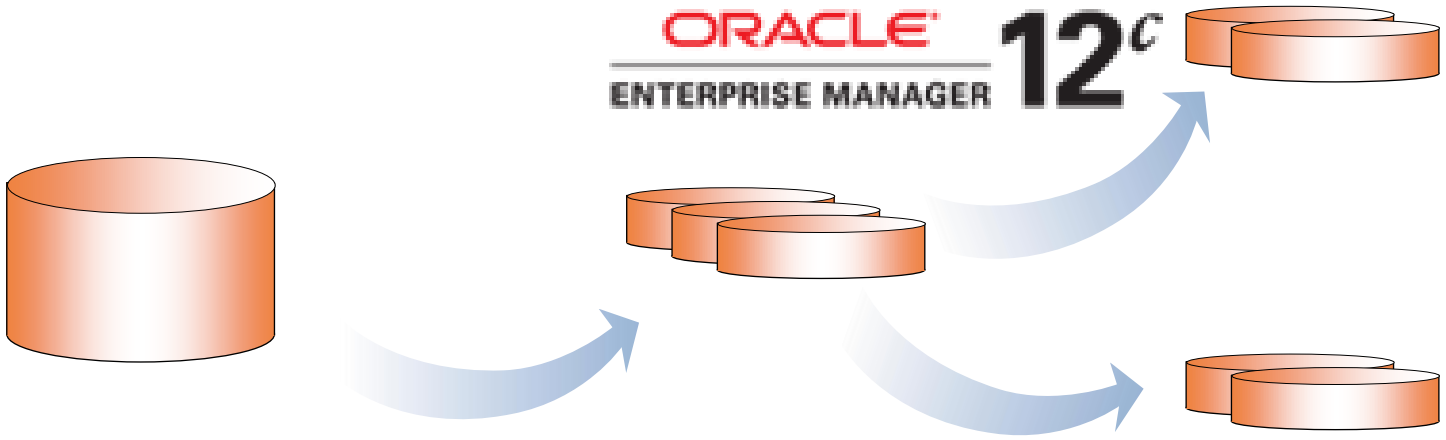
# BEHIND THE CHINA WALL



# THIN PROVISIONING CLONING

Infrastructure

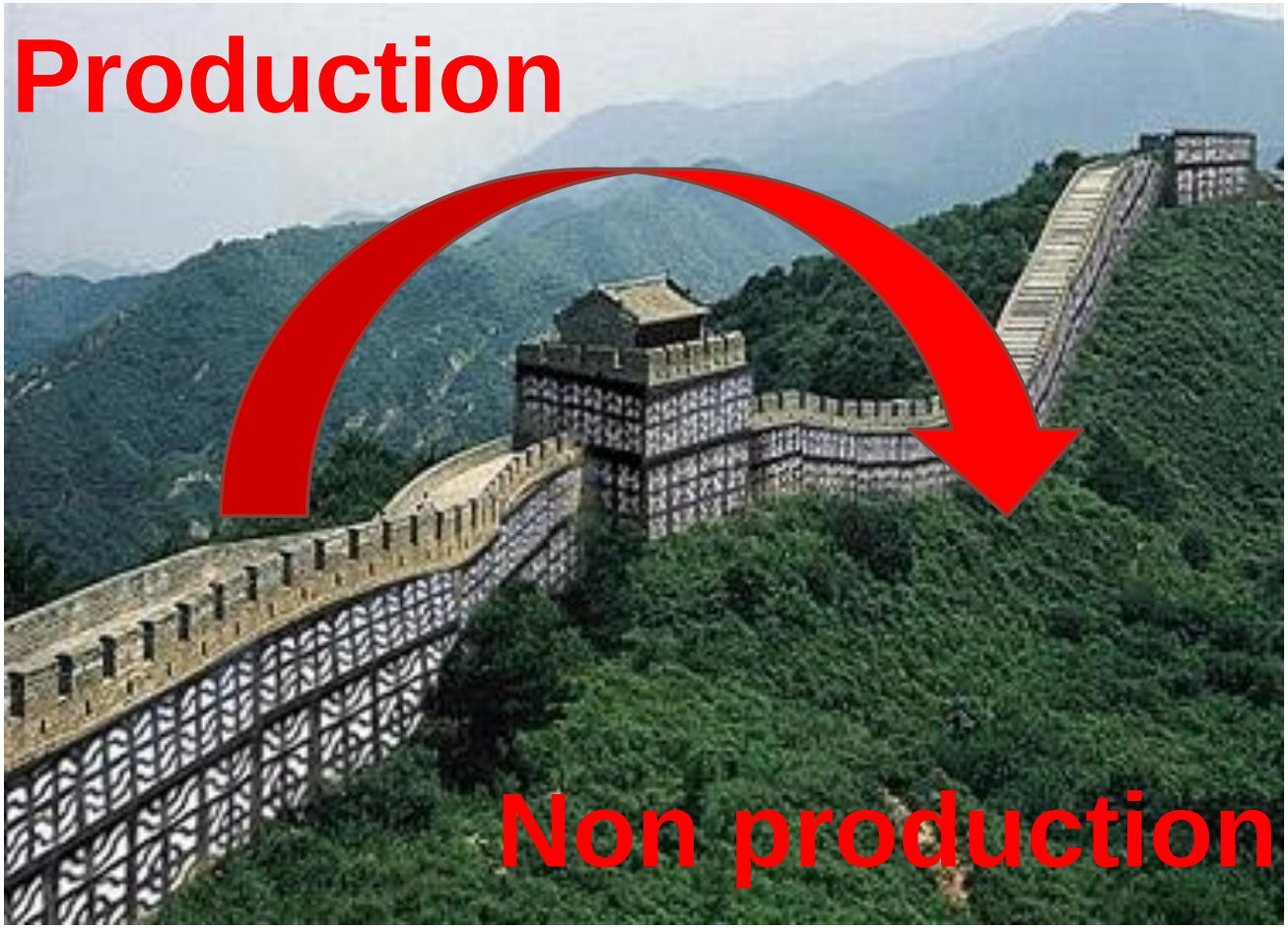
Self service




Reference DB  Snap clones  Snapshots

NAS (dNFS + NetApp)

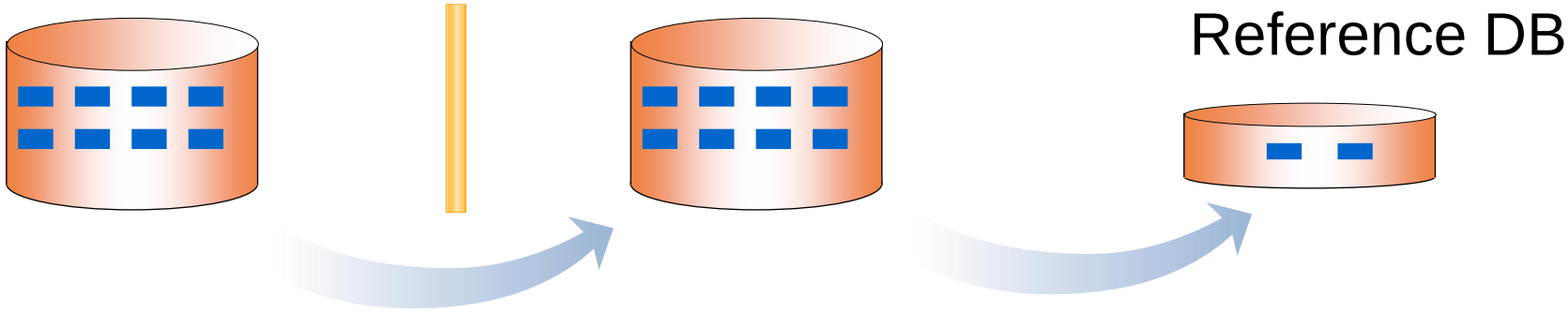
# CROSSING THE CHINA WALL



# REFERENCE DATA BASE USING RMAN

Production

Non production




Rman backup

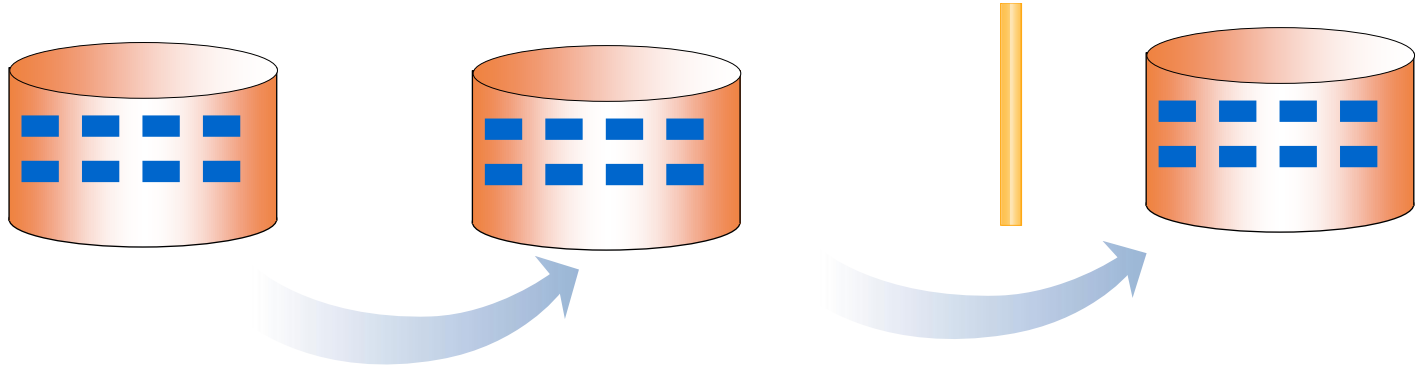
Restore and massage data before cloning

# REFERENCE DATA BASE USING DATA GUARD

## Production

## Non production

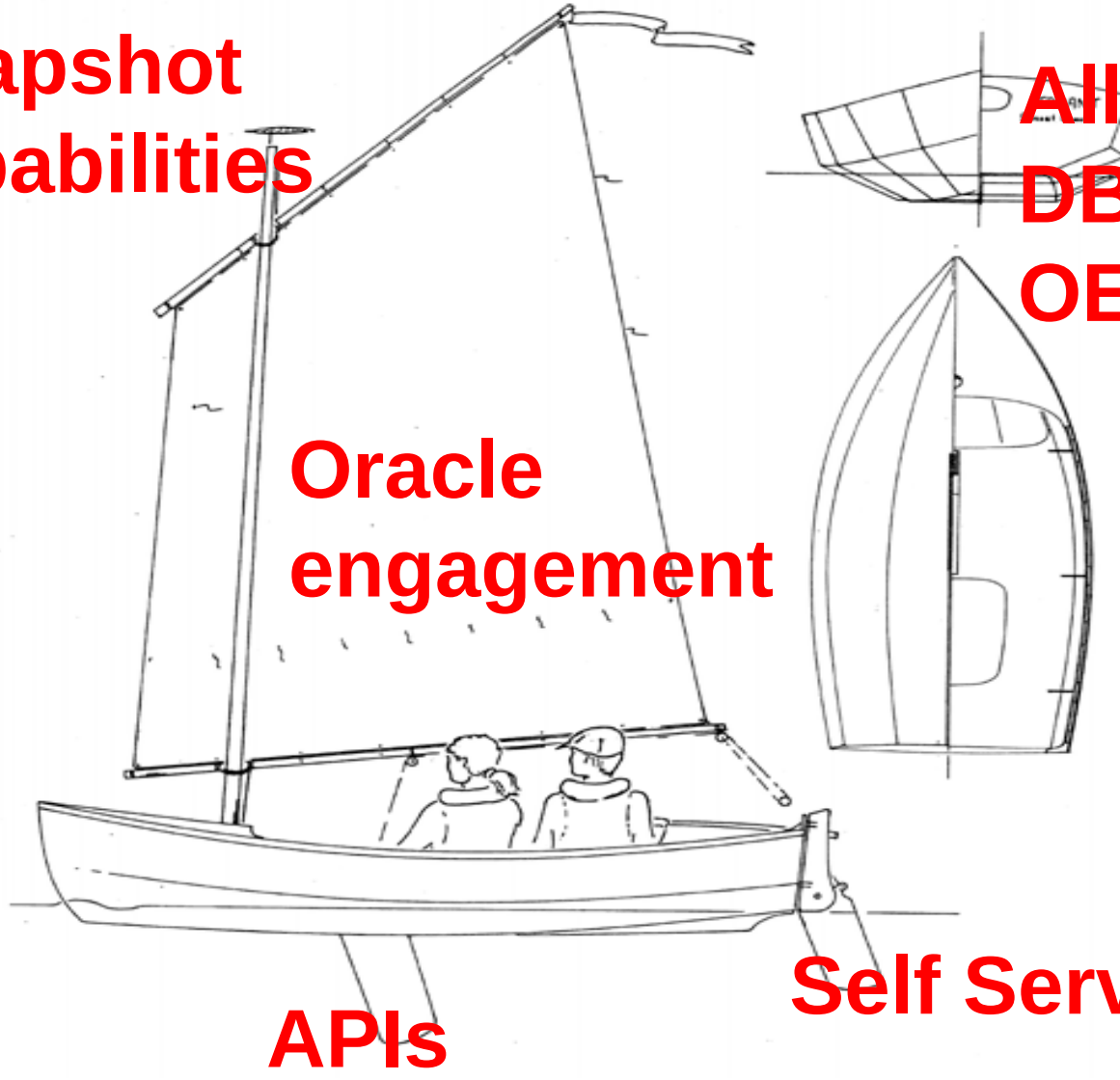
Reference DB



Data Guard Fast Recovery for corruptions

Cascaded Data Guard

# ORACLE DBAAS ON OEM



# François Morlot: Application Manager & Interest Rate Derivatives IT Team leader at SGCIB

*DB Refreshes were the most painful issue in the management of our infrastructure environment.*

*The deployment of DBaaS @SG is a huge progress and a key success factor of our agile methodology: we can now refresh a DB on demand in 15 minutes in our software factories and non regression tests DBs !*

# SATISFACTION

You can almost always get what you want