

Changing Servers with Little or No Downtime

*NYOUG
New York City
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Agenda

- Software install on the new server
- The standby build
- Care and feeding of the standby
- Completeness
- The switch



Software Install

- Do not take anything for granted
 - Can the server support Oracle
 - Shared memory segments
 - Semaphores
 - How much RAM

- For 10g

Linux x86

Solaris (R1)

HP-UX

AIX

UNIX

Software Install

- What version and what service pack is supported
- 32-bit or 64-bit download
- Not as dependent on O/S parameters
- A pleasure??

Windows

Old site or New site??

Old site

New site

The standby build

```
[ ] rman target / catalog rman/rman@rcat  
  
[ ] list backup completed after 'sysdate-7';  
  
[ ] ensure required backupset pieces reside on new site  
  
[ ] startup nomount  
  
[ ] restore controlfile {from autobackup};  
  
[ ] examine output for successful completion and  
    position of control files  
  
[ ] restore database;
```

The standby build

- [] `sqlplus '/ as sysdba'`
- ```
select 'alter tablespace '||tablespace_name||' begin backup;'||
chr(10)||'!scp '||file_name||' oracle@other_server:'||
file_name||chr(10)||'alter tablespace '||tablespace_name||'
end backup;'
from dba_data_files;
```
- [ ] `edit spooled output as required`
- [ ] `set up a trust between the 2 servers`
- [ ] `run the output from SQL*Plus`
- [ ] `verify successful completion and file counts the same`

# *The standby build*

```
[] sqlplus '/ as sysdba'

alter database create standby controlfile as 'stdbyctl.ctl' reuse;

[] sqlplus '/ as sysdba

shutdown immediate

[] cd $ORACLE_HOME/dbs

[] scp stdbyctl.ctl oracle@other_location:.

[] position standby control file in locations
specified

[] ensure proper names are used for control files
```



## *The standby build*

```
[] sqlplus '/ as sysdba'

startup nomount
alter database mount standby database;
recover standby database
[auto]

[] note sequence number of last archived redo log
applied
```

*We now have a living /  
breathing standby database*

# *Care and feeding of the standby*

```
[] sqlplus '/ as sysdba'
```

```
shutdown immediate
```

```
[] edit init file
```

```
log_archive_dest = ''
log_archive_dest_1 = 'location = {location}'
log_archive_dest_2 = 'SERVICE = {tns alias}'
remote_archive_enable = auto
```

```
[] sqlplus '/ as sysdba'
```

```
startup
```

```
[] edit init file
```

```
remote_archive_enable = auto
standby_file_management = auto
```

# *Care and feeding of the standby*

```
[] sqlplus '/ as sysdba'

shutdown immediate
startup nomount
alter database mount standby database;
alter database recover managed standby database disconnect;

FYI alter database recover managed standby database cancel;
shutdown immediate
```

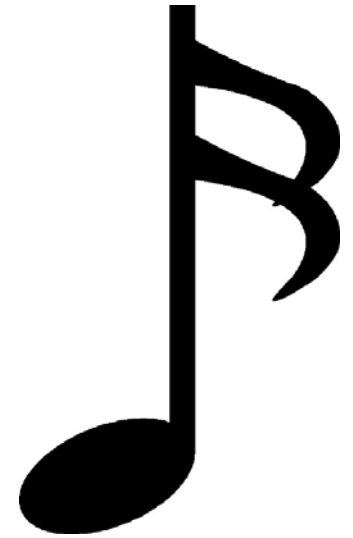
## *Care and feeding of the standby*

- [ ] create a script to switch log files every 10 minutes
- [ ] create a script to push archived redo  
avoid pushing the same archived redo over and over again
- [ ] create a script to perform recovery

*We now have a living / breathing  
recovering standby database*

## *Care and feeding of the standby*

- Ensure archived redo is making it to the standby site
- Ensure recovery is happening on the standby site
- Verify the lag time between master and standby using  
V\$LOG\_HISTORY
- Cannot rely on standby alert log



## *Completeness checking – new site*

- Oracle Net configuration files
  - good time to clean up tnsnames.ora
  - ensure Host and ORACLE\_HOME properly set in listener.ora (if being used)
- oratab clean up wise as well
- The crontab
  - do files exist
  - are they executable where required

## *Completeness checking – new site*

- rman
  - do scripts need attention
    - manual setting of ORACLE\_HOME
    - changes to pathing
  - recovery catalog instance
    - manage same way through the switch
    - as crucial as the production database
- data pump directories and permissions

## *The switch (10:05 PM)*

```
[] sqlplus '/ as sysdba'
```

```
alter system switch logfile;
shutdown
```

```
[] sqlplus '/ as sysdba'
```

```
alter database recover managed standby database cancel;
recover standby database;
shutdown immediate
```

```
[] copy control files
```

```
scp /u01/oradata/prod/control01.ctl oracle@other_server:/ ...
scp /u02/oradata/prod/control02.ctl oracle@other_server:/ ...
scp /u03/oradata/prod/control03.ctl oracle@other_server:/ ...
```



# *The switch*

[ ] **copy online redo logs**

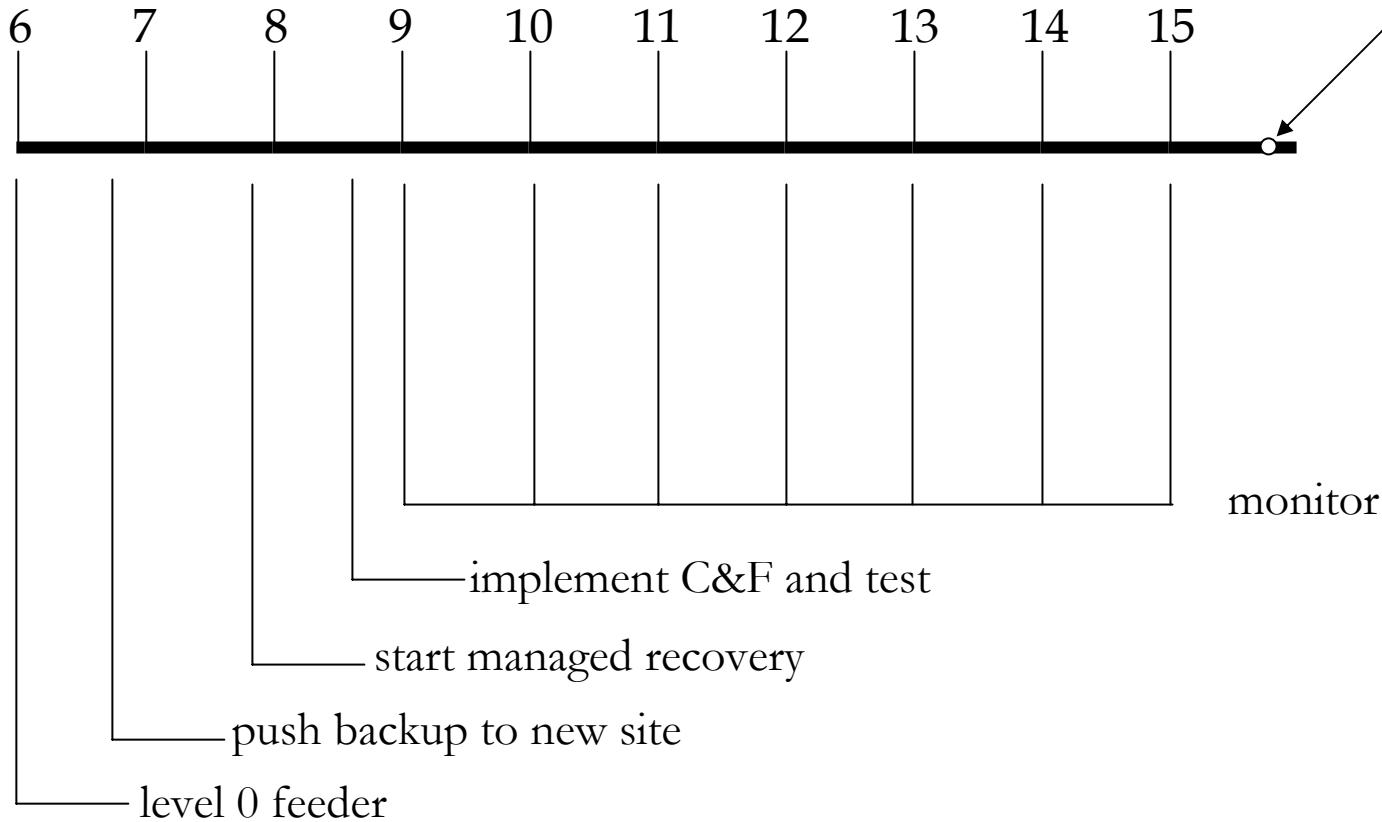
```
scp /u01/oradata/prod/log1_g1.rdo oracle@other_server:/ ...
scp /u01/oradata/prod/log2_g1.rdo oracle@other_server:/ ...
...
...
scp /u01/oradata/prod/log1_g4.rdo oracle@other_server:/ ...
scp /u01/oradata/prod/log2_g4.rdo oracle@other_server:/ ...
```

[ ] **sqlplus '/ as sysdba'**

```
startup
```

*10:08 PM*

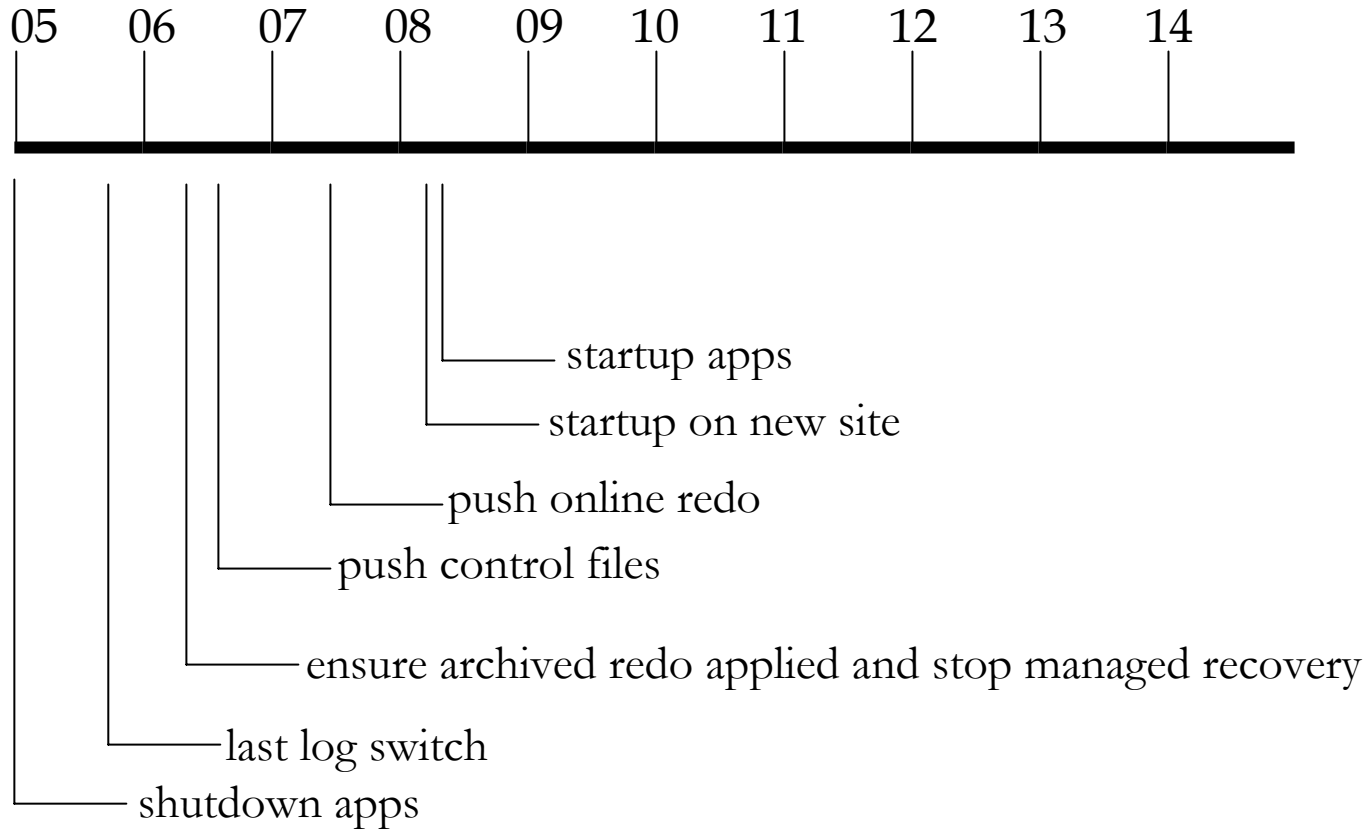
# March *Timeline*



Next slide



# 10: *Timeline*



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**fenderpbs**

