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# How to split a database backend.

## Purpose

This procedure describes how to take a backend database with multiple VOs in it, and remove a single VO from it, putting the VO into its own database account.

## Roles

This procedure is for LFC Administrators.

## Required Information and Materials

Field	Purpose
Account name of current DB backend	To be communicated to DB Team
Proposed account name and password of new DB backend	To be communicated to DB Team
Alias name of the VO that is to be moved	To know which daemons to shut down
passwordfile for SINDES	To update with the new NSCONFIG details

## Referred Documents

Keyword	Description
---------	-------------

## Preparations

- Before starting the procedure, you need to get a new database account created. To do this, contact `physics-database.support@cern.NOSPAMPLEASE.ch` and ask for a new account to be created on the LCG RAC. Also request that they will need to make a backup of the current DB backend, and apply it to the new database account during the intervention.
- Once you have the new database account, you need to do the following:
  - ◆ setup the password on the new account using `sqlplus`
  - ◆ update the SINDES config file with the new account details, and upload into SINDES. You will need a FIO person for this if you don't have a copy of the `lfcNSCONFIG.tar.gz` to work from.

```
sindes-upload-file -f lfcNSCONFIG.tar.gz -i lfcNSCONFIG --target gridlfc -S sindes-server -s clu
```

- You should announce the intervention via the EGEE Broadcast system.

## Activities

For the intervention:

- Identify the nodes for the VO to be moved, and use `sms` to put them into maintenance.
- Stop the `lfcdaemons` for the VO to be moved.
- Ask the DB team to take the hot backup, and apply it to the new account.
- Run the SINDES NCM component to get the new NSCONFIG (check it in `/opt/lcg/etc`)

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```
[root@lfc002 root]# ncm-ncd --co sindes
```

```
[INFO] NCM-NCD version 1.2.3 started by root at: Wed Aug 30 09:41:33 2006  
[INFO] executing configure on components....
```

```
[INFO] running component: sindes
```

```
-----  
[INFO] Using cache  
[INFO] SINDES won't download grid-host-certificates, HTTP server return NOT MODIFIED since Sun, 2  
[INFO] SINDES won't download group-header, HTTP server return NOT MODIFIED since Tue, 25 Apr 2006  
[OK] SINDES downloaded lfcNSCONFIG successfully  
[OK] SINDES configured lfcNSCONFIG successfully  
[INFO] SINDES won't download passwd-header, HTTP server return NOT MODIFIED since Wed, 23 Aug 200  
[INFO] SINDES won't download snmpd_passwd, HTTP server return NOT MODIFIED since Wed, 16 Aug 2006  
[INFO] configure on component sindes executed, 0 errors, 0 warnings
```

```
=====
```

- Once the DB team has said the new account is read, create the synonyms in the reader and writer accounts.
- start up the daemons, clear the SMS state and announce that the service is now available again.

After the intervention, you need to clean up the entries from the two catalogs. To do this, run the following SQL. This lists all the entries of the form /grid/.

```
select fileid, name, nlink from Cns_file_metadata where parent_fileid =  
    (select fileid from Cns_file_metadata where parent_fileid =  
        (select fileid from Cns_file_metadata  
            where parent_fileid = 0 and name = '/'));
```

Now, Now find the fileid for the VO you want to remove in this list and fill it into the `var FID` line below. Then run the following SQL which deletes all the entries in the tables related to this VO.

```
--  
-- find the fileid from above that you want to delete,  
-- fill in here, and then run the rest.  
--  
var FID = XXXXXXXX;  
  
delete from Cns_user_metadata where u_fileid in  
    (select fileid from Cns_file_metadata start with parent_fileid = :FID  
        connect by prior fileid = parent_fileid );  
delete from Cns_file_replica where fileid in  
    (select fileid from Cns_file_metadata start with parent_fileid = :FID  
        connect by prior fileid = parent_fileid );  
commit;  
  
delete from Cns_symlinks where fileid in  
    (select fileid from Cns_file_metadata start with parent_fileid = :FID  
        connect by prior fileid = parent_fileid);  
  
commit;  
delete from Cns_file_metadata where fileid in  
    (select fileid from Cns_file_metadata start with parent_fileid = :FID  
        connect by prior fileid = parent_fileid);  
update Cns_file_metadata set nlink = 0 where fileid = :FID;  
commit;
```

Repeat for each VO to be removed.

## Checking Completion

Use the LFC CLI tools to check the right entries are in the right databases.

```
[root@lxb1132 root]# export LFC_HOST=lxb1132
[root@lxb1132 root]# /opt/lcg/bin/lfc-ls /grid
atlas
cms
ops
```

## After Completion

Error	Action
any	CALL LFC Expert

---

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