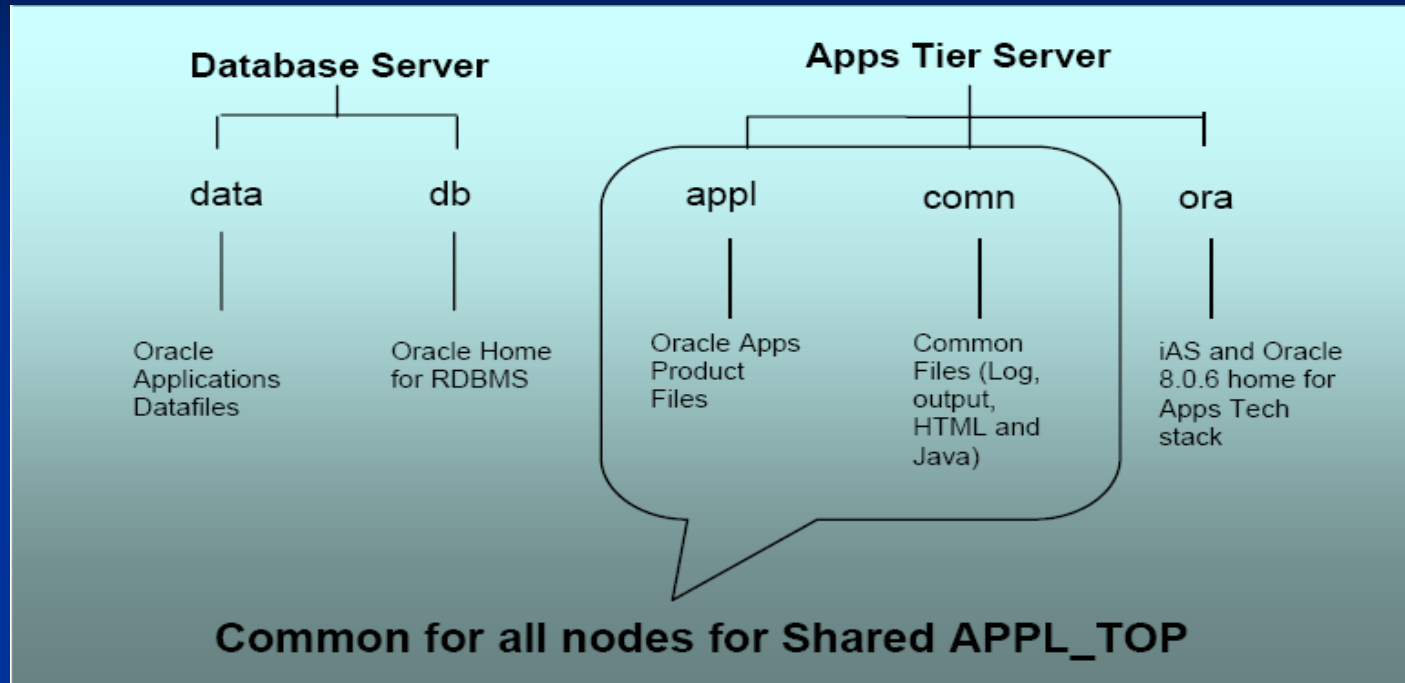


# Shared APPL\_TOP

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# Introduction



- Basically Shared APPL\_TOP's means sharing APPL\_TOP and COMMON\_TOP across the Application Servers.
- iAS\_ORACLE\_HOME and 8.0.6 ORACLE\_HOME can only be shared if operating system on all application servers are same.

# Benefits

- Administration tasks only need to be performed on any one node in the system
- Application patches only need to be applied to any one node in the system
- Allows the use of "Distributed AD" to reduce downtime (see MetaLink 236469.1)
- Reduces overall disk space requirements
- Makes it easier to add additional nodes to your Applications system
- Create single node clones from a shared APPL\_TOP multi node system
- Merge APPL\_TOP's from different application tiers into a single APPL\_TOP

# Disadvantages

- Single point of failure
- Performance might be an issue, if shared APPL\_TOP's filesystem will be a nfs mount point.

# Implementation

- Requirement
  - The system must be configured for AutoConfig
  - AD mini-pack H (2673262) must be applied (if on 11.5.8 or lower).
  - The environment must be on ADX mini-pack D (3130740) or later.
  - The Oracle Universal Installer must be patched to version 2.2.0.19. Apply patch 3567364 to the iAS and database ORACLE\_HOME.

# Implementation Contd.

- If the tech stack for the applications environment was created with Rapid Install 11.5.8 or earlier, you need to regenerate the Applications Context File:
  - `$ cd <AD_TOP>/bin`
  - `$ perl adclonctx.pl sharedappltop \  
contextfile=<existing Applications Context File>`
- This will create a new Applications Context File that conforms to the standard naming convention `<sid>_<host>.xml`.
- Run AutoConfig:
  - `$ cd <AD_TOP>/bin`
  - `$ adconfig.sh contextfile=<Applications Context File>`

# Implementation Contd.

- Adding node.
  - Make the APPL\_TOP and COMMON\_TOP directories accessible to the target node. A NFS file system solution is usually implemented to meet this requirement. You must retain the same absolute path for the mount points of the shared APPL\_TOP and COMMON\_TOP directories.
  - **Software Minimum Version Verify Command**
    - Perl 5.005 perl -version
    - JDK 1.3.1 java -version
    - Zip 2.3 zip -v
- Prepare the source node. Login to the node whose APPL\_TOP you are sharing and execute the following commands:
  - \$ cd <COMMON\_TOP>/admin/scripts/<CONTEXT\_NAME>
  - \$ perl adpreclone.pl appsTier

# Implementation Contd.

- Clone the technology stack from the source system to the target. Use the following steps as a guide:
  - Use the tar utility to create a backup the source <806 ORACLE\_HOME> and <IAS ORACLE\_HOME>. Copy or ftp to the target node and untar into a directory containing the same absolute path as the source system
  - Copy the \$HOME/identitydb.obj file from the source node to \$HOME/identitydb.obj on the target node
  - Login to the target node you are adding and execute the following commands:

```
$ cd <AD_TOP>/bin
$ perl adclonctx.pl sharedappltop \
  contextfile=<Applications Context file of the sourcenode>
$ cd <COMMON_TOP>/clone/bin
$ perl adcfgclone.pl appsTier <Applications Context file of the new
node>
```

# Implementation Contd.

- When running `adcfgclone.pl`, you will be prompted for the “node types”. Enter
- the types that the node you are adding is supporting. For example, if the node is
- a forms/web server, answer “Yes” to the questions “Do you want to add forms
- server node?” and “Do you want to add web server node?” as shown in the
- sample output from `adcfgclone.pl` below:

```
Enter the APPS password [APPS]: apps
```

```
Do you want to use a virtual hostname for the target node (y/n) [n]?: n
```

```
Target system database SID [ppscde1]:ppscde2
```

```
Target system domain name [corp.pbgc.gov]: corp.pbgc.gov
```

```
Target system database server node [solcde04]: solcde04
```

```
Does the target system have more than one application tier server node (y/n) [y]?:y
```

```
Target system concurrent processing node [solcde04]:solcde04
```

```
Target system administration node [solcde04]:solcde04
```

```
Target system forms server node [solcde41]:solcde41
```

```
Target system web server node [solcde41]:solcde41
```

```
Is the target system APPL_TOP divided into multiple mount points (y/n) [n]?: n
```

```
Target system APPL_TOP mount point [/apps/ppsapps1/ppscde1appl]:/apps/ppsapps2/ppscde2appl
```

```
Target system COMMON_TOP directory [/apps/ppsapps1/ppscde1comm]:/apps/ppsapps2/ppscde2comm
```

# Implementation Contd.

- At this point, you should have a new functioning application tier server configured for the services you defined. If you converted from a single node to a multi node shared APPL\_TOP as described above, then the URL for the applications login page will change to reflect the hostname of the forms/web node.
- After converting to a shared APPL\_TOP, check the 9iAS apache error log for entries similar to:  
[Sun Jul 11 22:53:21 2005] [error] [client solcde41] Symbolic link not allowed: /d01/tst11i/tst11icomn/
- If this error is being logged, then change the “-FollowSymLinks” parameter in the apache httpd.conf file to “+FollowSymLinks” to resolve.
- Also, we have found that when running AutoConfig on the original single tier node, you should also run AutoConfig on the new forms/web tier afterwards.

# Conclusion

- Sharing the `APPL_TOP` file system is not suited for every environment but if you have multiple application tiers or want to convert a single node into a multi node, it can significantly reduce patching and maintenance. However, carefully consider the trade-offs you may need to make.
- At a minimum, ensure the shared NFS file system is a high availability storage device in a RAID configuration with large network communication bandwidth.