PODBA v2.2 – Upgrade Single Instance GI and Multiple DBs from 12c to 19c.

Introduction: This readme helps to understand the upgrade of Single Instance Grid Infrastructure along with Multiple Oracle Databases on ASM/JFS from Oracle 12c to 19c. It will do the installation of 19c Single Instance GI and upgrade it, installation of 19c RDBMS and upgrades the database leveraging Oracle's "autoupgrade.jar" tool. About Oracle Database AutoUpgrade.

Below figures provide a pictorial representation of the upgrade process using this Ansible collection.

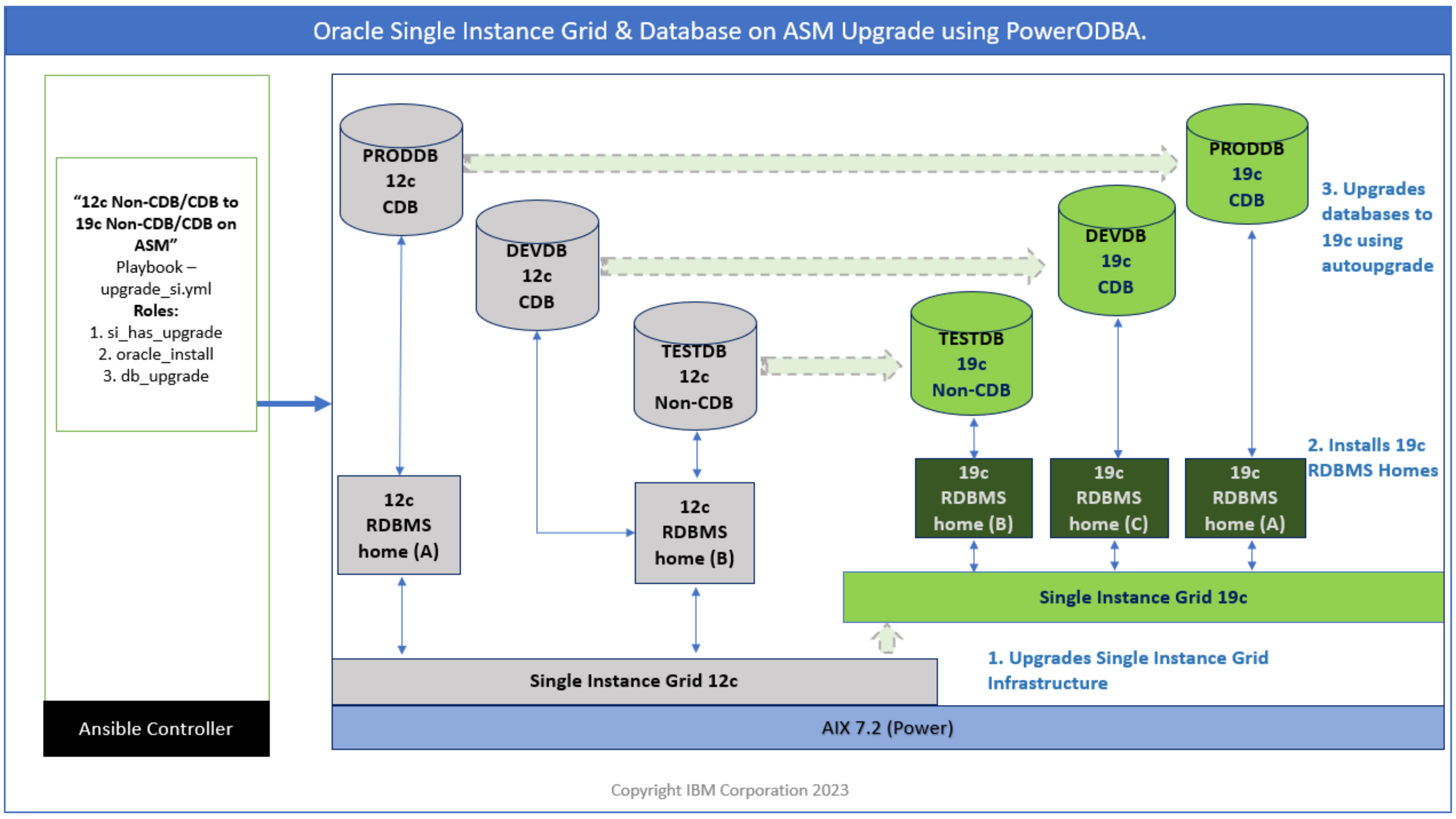
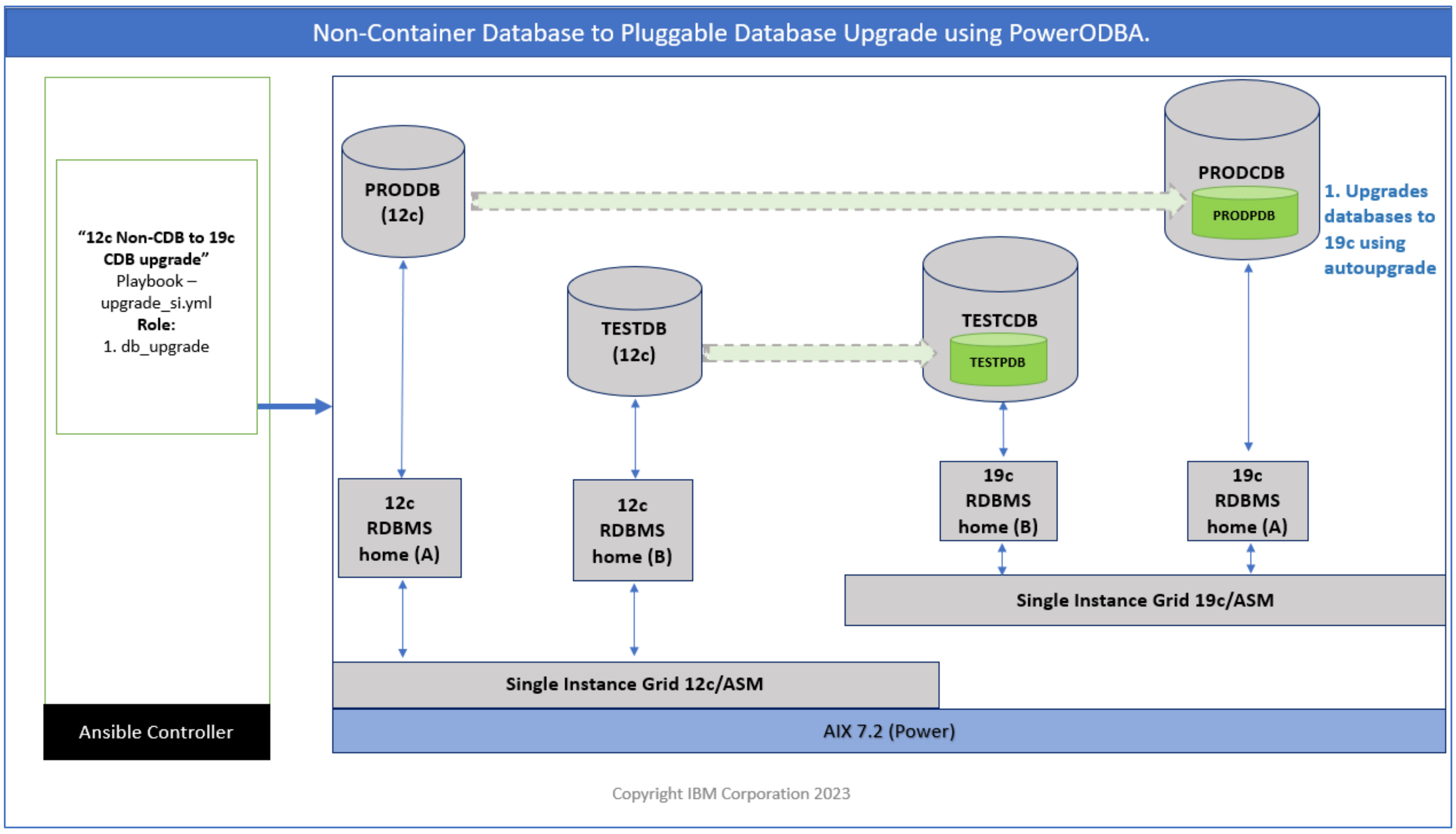


Fig: 1 Upgrading 12c Non-CDB/CDB to 19c Non-CDB/CDB

Note: All the pluggable databases inside the container database will be upgraded from 12c to 19c as part of upgrade process.



Non-Container Database to Pluggable Database Upgrade using PowerODBA.
"12c Non-CDB to 19c CDB upgrade"
Playbook – upgrade_si.yml
Role:
1. db_upgrade
Ansible Controller
PRODDB (12c)
TESTDB (12c)
12c RDBMS home (A)
12c RDBMS home (B)
Single Instance Grid 12c/ASM
PRODCDB
PRODPDB
TESTCDB
TESTPDB
19c RDBMS home (B)
19c RDBMS home (A)
Single Instance Grid 19c/ASM
1. Upgrades databases to 19c using autoupgrade
AIX 7.2 (Power)
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Fig: 2 Upgrading 12c Non-CDB to 19c CDB

Note: When upgrading from 12c Non CDB to 19c CDB, the 19c Container database should be created manually and the variable file should be updated before running the playbooks. Please read "other scenarios" of "steps to run the playbook" provided in the later section of this readme.

File system architecture:

1. **Path to the collection**: $*ansible-collection-install-dir*/ibm/power_aix_oracle_dba.
2. **upgrade_si.yml**: This is the *playbook* file which is responsible for installation and upgrade of 19c Single instance Grid & databases by calling the respective roles. The file is under - ***"ansible-collection-install-dir"*/ibm/power_aix_oracle_dba/playbooks**. Only the managed host's hostname must be updated in this file.
3. **inventory.yml**: This file is provided in the collection which contain all the managed hosts details. It is NOT mandatory to use only this file, if you already have an inventory file defined in another location, that can be used.

4. **upgrade_si_vars.yml**: This file contains all the variables required to perform the upgrade. It is under is under - ***"ansible-collection-install-dir"*/ibm/power_aix_oracle_dba/playbooks/vars/upgrade**. Specification of each variable is provided in this file itself.
5. **vault.yml**: The sys user password of ASM must be mentioned in this file, this file is in ***"ansible-collection-install-dir"*/ibm/power_aix_oracle_dba/playbooks/vars.** It must be encrypted using "ansible-vault" after the password is stored in the file.
   Ansible Vault is a security utility provided by Ansible to encrypt files which contain sensitive information such as passwords. Refer: A brief introduction to Ansible Vault | Enable Sysadmin (redhat.com)

   ```
   $ ansible-vault encrypt vault.yml
   ```

6. **Roles**: There are three ansible roles which will be used to perform the upgrade. Description of each role is given below.

Ansible Roles to Upgrade SI GI & DBs		
si_has_upgrade	**oracle_install**	**db_upgrade**
Upgrades Single Instance 12c Grid to 19c with (or) without RU.	Installs 19c Oracle database home with (or) without RU for DB upgrades.	Upgrades the database using autoupgrade.jar utility.
1. Checks if 19c Single Instance Grid Infrastructure is already installed. 2. Checks for source (12c) grid setup. 3. Checks the required value of maxuproc value. 4. Checks for mandatory patch on source (12c) grid home for 19c upgrade. 5. Extracts the 19c Grid software. 6. Backups up OPatch and extracts latest OPatch when apply_ru is set to True. 7. Extracts Release update patch when apply_ru is set to True. 8. Checks freespace in Grid home path and fails if freespace is less than 80GB, it is mandatory check set by Oracle to have 80GB of freespace to do the patching. 9. Runs cluvfy.sh and pauses the task in case any missing/failed items are found. 10. Executes rootpre.sh 11. Creates & copies grid_upgrade.rsp response file from template to the target lpar. 12. Executes gridSetup.sh (with upgrade option) in silent mode along with -applyRU when apply_ru is set to True or executes without applyRU option when apply_ru is set to False. It will show the status and lists the log files upon completion of the new 19c Grid Installation. 13. **Upgrade:** Stops the databases on 12c DB homes which are provided for *source_db_name* in the *databases* section of the variables file (upgrade_si_vars.yml). 14. Executes rootupgrade.sh. 15. Executes gridSetup.sh -silent -executeConfigTools and lists the log files upon completion. 16. Checks and displays the status of grid services. 17. Starts the databases from 12c DB home which were stopped before the upgrade.	1. Checks for any failed 19c RDBMS installations. 2. Extracts the 19c RDBMS software. 3. Backups up OPatch and extracts latest OPatch when apply_ru is set to true. 4. Extracts Release update patch when apply_ru is set to True. 5. Executes rootpre.sh 6. Creates & copies oracle_install.rsp response file from template to the target lpar. 7. Installs 19c RDBMS software. 8. Executes root.sh 9. Continues to create multiple Oracle homes based on the number of "target_db_home" variables provided in the variables file.	1. Creates a stage directory to place the autoupgrade configuration file. 2. Checks DB name in oratab. 3. Checks DB is up and running or not. 4. Generates autoupgrade configuration file based on the inputs provided in the variables file. 5. Executes autoupgrade in analyze mode. [User must review the "analyze" results and fix them before running the "deploy" mode. 6. User should execute the playbook with deploy tag for autoupgrade to run in deploy mode.

Important Steps to know before performing the upgrade:

1. Apply required patches on the 12c environment to avoid unintended errors prior to the upgrade process. Refer MOS Doc ID 2539751.1.
2. Stage the 19c Grid home software and 19c RDBMS home software, Release Update (RU) patch & latest Opatch utility zip files in a specific directory on the target lpar and mention that path for the variable "sw_stage" in the the variables file [power_aix_oracle_dba/playbooks/vars/upgrade/upgrade_si_vars.yml].
3. Always use the latest autoupgrade.jar file [AutoUpgrade Tool (Doc ID 2485457.1)] and stage that in a directory on the target lpar and mention that path for the variable "autoupgrade_file_loc" in the variables file [power_aix_oracle_dba/playbooks/vars/upgrade/upgrade_si_vars.yml].
4. The freespace in the installer path of 19c homes should be more than 80GB. This is applicable when you want to apply Release Update patches (RU) along with Grid & Oracle Homes installation.
5. Starting from RU 19.18 "-applyRU" won't work with gridSetup.sh (or) runInstaller. As a workaround, upgrade GI to 19.17 and then use PowerODBA patch modules to patch to 19.18 or later.
6. If you want the autoupgrade to create a restore point, enable Flashback mode, and maintain sufficient freespace in Flash Recovery Area to avoid failure during the upgrade process.

   ```
   SQL> alter system set db_recovery_file_dest_size=35G;  -- Increase the size as per your environment.
   SQL> alter system set db_recovery_file_dest='+FRA';     -- For example, FRA diskgroup was used. JFS path can also be used.
   SQL> shutdown immediate;
   SQL> startup mount;
   SQL> alter database archivelog;
   SQL> alter database flashback on;
   SQL> alter database open;
   ```

7. To proceed with the upgrade without creating a restore point, update this variable "restoration" in the "databases" section to 'no' in the variables file power_aix_oracle_dba/playbooks/vars/upgrade/upgrade_si_vars.yml
8. The list of 12c databases running on ASM must be mentioned in the variable "source_db_name" of the "databases" section in power_aix_oracle_dba/playbooks/vars/upgrade/upgrade_si_vars.yml file. The listed databases will be shut down during Single Instance Grid Infrastructure (rootupgrade.sh) upgrade.
9. Please use your standard backup strategy before starting the upgrade process. This playbook won't backup the databases.
10. Upgrade of Grid Infrastructure for RAC & RAC databases are NOT SUPPORTED.
11. Always run the playbooks in a vnc viewer to avoid ssh timeouts.
12. Following tags are provided:
    a. si_has_upgrade: This will invoke the role "si_has_upgrade". Upgrades SI Grid Infrastructure to 19c from 12c.
    b. oracle_install: This will invoke the role "oracle_install". Installs 19c Oracle Homes for database upgrades from 12c to 19c.
    c. predbupgrade: This will invoke prerequisite part of "db_upgrade" role which will do prechecks on the existing databases running on the lpar.

    d. analyze: This will invoke "autoupgrade" analyze mode which is a section of “db_upgrade” role.
    e. deploy: This will invoke a section of “db_upgrade” role which will invoke "autoupgrade" deploy mode, which is the core database upgrade mode.

13. These playbooks will create three directories (podba*) in /tmp. They should NOT be removed until the upgrade process completes otherwise it will compromise idempotency.
14. Try this on a Non-production environment first before using it on a Production environment.

Playbook:

```
$ cat upgrade_si.yml
- hosts: ansible_db                    # Provide the name of the target lpar registered in ansible_inventory.
  remote_user: root                   # This needs to be run by "root" user.
  gather_facts: False
  vars_files:
     - ./vars/upgrade/upgrade_si_vars.yml
     - ./vars/vault.yml
  roles:
    - role: si_has_upgrade
      tags: si_has_upgrade
    - role: oracle_install
      tags: oracle_install
    - role: db_upgrade
```

Steps to run the playbook:

1. **Full Stack Upgrade**: Upgrade Single Instance GI & all the databases running on ASM. Playbook must be executed twice as shown below. The first command will perform 19c Single instance GI installation and upgrade, installation of 19c RDBMS along with Autoupgrade Analyze mode. Users must review the logs and fix any errors/recommendations reported by the autoupgrade tool and rerun the playbook with “deploy” tag.
    1) ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags si_upgrade,oracle_install,predbupgrade,analyze
    2) ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags deploy
2. **Other scenarios:**
    a) To upgrade only Single Instance Grid, following command must be executed.
        ➢ ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags si_upgrade
    b) If the databases are running on JFS then Single Instance Grid upgrade is not required. In such case, skip the role “si_has_upgrade”
        ➢ ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags oracle_install,predbupgrade,analyze
    c) If 19c Oracle Homes are already installed, skip the role “oracle_install” and directly jump to “db_upgrade”.
        ➢ ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags predbupgrade,analyze
        Review the results of analyze mode of autoupgrade and execute “deploy” mode.
        ➢ ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags deploy.
    d) To upgrade a Non-Container database and plug it into a 19c Container database (upgrade & plug-in),
        ➢ ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags oracle_install
        Manually create a 19c container database.
        Update the database variables required to do the upgrade.
        ➢ ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags predbupgrade,analyze
        Review the results of analyze mode of autoupgrade and execute “deploy” mode.
        ➢ ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags deploy.

Reference output of Single Instance Grid & Databases Upgrade

SIHA Version before performing the upgrade

```
-bash-5.1$ crsctl query has releaseversion
Oracle High Availability Services release version on the local node is [12.1.0.2.0]
-bash-5.1$ hostname
ansible_db
```

```
[ansible@x134vm236 playbooks]$ ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags si_upgrade,oracle_install,predbupgrade,analyze

PLAY [ansible_db] *******************************************************************

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Checking if Upgrade Task was already done] ***
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : fail] **************************
skipping: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Checking if 19c Grid Infra is already setup] ***
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Checking for failed installations] ***
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Cleaning up failed installations | Grid Home] ***
skipping: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Cleaning up failed installations | podba_gi_temp] ***
skipping: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Creating Temp Directory] *******
ok: [ansible_db] => (item=logs)
```

```
ok: [ansible_db] => (item=done)
ok: [ansible_db] => (item=scripts)

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Checking if prechecks already run] ***
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Check HAS Version] *************
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Getting HAS Version] ***********
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Copying prechecks.sh] **********
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Executing prechecks.sh] ********
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : debug] *************************
ok: [ansible_db] => {
   "precheck_out.stdout_lines": [
      "Prechecks completed successfully."
   ]
}

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Copying sw_extract.sh] *********
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Execute sw_extract.sh] *********
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Checking freespace in Grid Install Path] ***
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : fail] **************************
skipping: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Checking if cluvfy already executed] ***
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Running Cluvfy] ****************
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : debug] *************************
skipping: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : ansible.builtin.pause] *********
skipping: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Executing rootpre.sh] **********
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Copying grid response file] ****
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Copying grid_install.sh] *******
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Setting Up new 19c Grid for HAS] ***
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : debug] *************************
ok: [ansible_db] => {
   "new_grid_out.stdout": "gridSetup.sh completed successfully."
}

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Checking if rootupgrade is already executed] ***
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Stopping database services before Root Upgrade] ***
changed: [ansible_db] => (item={'source_db_name': 'demo', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u01/base/db19c', 'log_dir': '/u02/base/autoupgrade/dbupgrdlogs',
'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'target_cdb_name': None, 'spfile': '+data/demo/parameterfile/spfile.14471.1143005889'})
changed: [ansible_db] => (item={'source_db_name': 'demodb', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u02/base/ansi1db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile': '+data/demodb/spfiledemodb.ora'})
changed: [ansible_db] => (item={'source_db_name': 'testdb', 'source_db_home': '/u01/dbhome12c', 'target_db_home': '/u02/base/ansi2db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile':
'+data/testdb/parameterfile/spfile.11782.1143057567'})

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Copying grid_upgrade.sh] *******
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Executing grid_upgrade.sh] *****
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : ansible.builtin.debug] *********
ok: [ansible_db] => {
   "grid_upgrade_out.stdout": "Rootupgrade.sh completed successfully"
}

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Post Grid Upgrade Steps | Copying config_tools.sh] ***
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Post Grid Upgrade Steps| Executing Config Tools] ***
changed: [ansible_db]
```

```
TASK [ibm.power_aix_oracle_dba.si_has_upgrade : ansible.builtin.debug] *********
ok: [ansible_db] => {
   "config_tools_out.stdout": "gridSetup.sh -executeConfigTools completed successfully"
}

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Post Grid Upgrade Steps | Checking if Config Tools is successful.] ***
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Post Grid Upgrade Steps| Status of GI Services] ***
changed: [ansible_db]

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : ansible.builtin.debug] *********
ok: [ansible_db] => {
   "check_services.stdout_lines": [
      "NAME=ora.cssd",
      "TYPE=ora.cssd.type",
      "TARGET=ONLINE",
      "STATE=ONLINE on ansible_db"
   ]
}

TASK [ibm.power_aix_oracle_dba.si_has_upgrade : Post Grid Upgrade Steps | Starting database services] ***
changed: [ansible_db] => (item={'source_db_name': 'demo', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u01/base/db19c', 'log_dir': '/u02/base/autoupgrade/dbupgrdlogs',
'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'target_cdb_name': None, 'spfile': '+data/demo/parameterfile/spfile.14471.1143005889'})
changed: [ansible_db] => (item={'source_db_name': 'demodb', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u02/base/ansi1db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile': '+data/demodb/spfiledemodb.ora'})
changed: [ansible_db] => (item={'source_db_name': 'testdb', 'source_db_home': '/u01/dbhome12c', 'target_db_home': '/u02/base/ansi2db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile':
'+data/testdb/parameterfile/spfile.11782.1143057567'})

TASK [ibm.power_aix_oracle_dba.oracle_install : Creating Temp Directory | /tmp/podba_install_temp] ***
ok: [ansible_db] => (item=done)
ok: [ansible_db] => (item=scripts)
ok: [ansible_db] => (item=logs)

TASK [ibm.power_aix_oracle_dba.oracle_install : Reading Oracle Inventory File] ***
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.oracle_install : Setting Fact for Inventory File] ***
ok: [ansible_db]

TASK [ibm.power_aix_oracle_dba.oracle_install : Preparing Oracle Homes List for Installation] ***
ok: [ansible_db] => (item={'source_db_name': 'demo', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u01/base/db19c', 'log_dir': '/u02/base/autoupgrade/dbupgrdlogs',
'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'target_cdb_name': None, 'spfile': '+data/demo/parameterfile/spfile.14471.1143005889'})
ok: [ansible_db] => (item={'source_db_name': 'demodb', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u02/base/ansi1db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile': '+data/demodb/spfiledemodb.ora'})
ok: [ansible_db] => (item={'source_db_name': 'testdb', 'source_db_home': '/u01/dbhome12c', 'target_db_home': '/u02/base/ansi2db19c', 'log_dir': '/u02/base/autoupgrade/dbupgrdlogs',
'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile': '+data/testdb/parameterfile/spfile.11782.1143057567'})

TASK [ibm.power_aix_oracle_dba.oracle_install : Copying Oracle RDBMS Install response file] ***
changed: [ansible_db] => (item={'oh': 'u01basedb19c', 'oracle_home': '/u01/base/db19c'})
changed: [ansible_db] => (item={'oh': 'u02baseansi1db19c', 'oracle_home': '/u02/base/ansi1db19c'})
changed: [ansible_db] => (item={'oh': 'u02baseansi2db19c', 'oracle_home': '/u02/base/ansi2db19c'})

TASK [ibm.power_aix_oracle_dba.oracle_install : Copying oracle_install.sh] *****
changed: [ansible_db] => (item={'oh': 'u01basedb19c', 'oracle_home': '/u01/base/db19c'})
changed: [ansible_db] => (item={'oh': 'u02baseansi1db19c', 'oracle_home': '/u02/base/ansi1db19c'})
changed: [ansible_db] => (item={'oh': 'u02baseansi2db19c', 'oracle_home': '/u02/base/ansi2db19c'})

TASK [ibm.power_aix_oracle_dba.oracle_install : Installing 19c RDBMS] **********
changed: [ansible_db] => (item={'oh': 'u01basedb19c', 'oracle_home': '/u01/base/db19c'})
changed: [ansible_db] => (item={'oh': 'u02baseansi1db19c', 'oracle_home': '/u02/base/ansi1db19c'})
changed: [ansible_db] => (item={'oh': 'u02baseansi2db19c', 'oracle_home': '/u02/base/ansi2db19c'})

TASK [ibm.power_aix_oracle_dba.oracle_install : Oracle Install Output] *********
ok: [ansible_db] => (item={'changed': True, 'end': '2023-08-10 10:02:08.911926', 'stdout': 'Extraced 19c software in /u01/base/db19c\n/u01/base/db19c/OPatch
unzipped.\n/u01/base/db19c/clone/rootpre.sh output will be logged in /tmp/rootpre.out_23-08-10.09:52:05\nYou must be logged in as root to run this script\nAborting pre-installation
procedure. Installations of Oracle may fail.\nOracle install done', 'cmd': ['ksh93', '/tmp/podba_install_temp/scripts/oracle_install_u01basedb19c.sh'], 'rc': 0, 'start': '2023-08-10
09:50:13.651512', 'stderr': '', 'delta': '0:11:55.260414', 'invocation': {'module_args': {'executable': None, 'chdir': None, 'strip_empty_ends': True, '_raw_params': 'ksh93
/tmp/podba_install_temp/scripts/oracle_install_u01basedb19c.sh', 'removes': None, 'argv': None, 'creates': None, '_uses_shell': False, 'stdin_add_newline': True, 'stdin': None}}, 'msg': '',
'stdout_lines': ['Extraced 19c software in /u01/base/db19c', '/u01/base/db19c/OPatch unzipped.', '/u01/base/db19c/clone/rootpre.sh output will be logged in /tmp/rootpre.out_23-08-
10.09:52:05', 'You must be logged in as root to run this script', 'Aborting pre-installation procedure. Installations of Oracle may fail.', 'Oracle install done'], 'stderr_lines': [], 'failed': False,
'item': {'oh': 'u01basedb19c', 'oracle_home': '/u01/base/db19c'}, 'ansible_loop_var': 'item'}) => {
   "msg": "item"
}
ok: [ansible_db] => (item={'changed': True, 'end': '2023-08-10 10:14:32.058038', 'stdout': 'Extraced 19c software in /u02/base/ansi1db19c\n/u02/base/ansi1db19c/OPatch
unzipped.\n/u02/base/ansi1db19c/clone/rootpre.sh output will be logged in /tmp/rootpre.out_23-08-10.10:04:12\nYou must be logged in as root to run this script\nAborting pre-
installation procedure. Installations of Oracle may fail.\nOracle install done', 'cmd': ['ksh93', '/tmp/podba_install_temp/scripts/oracle_install_u02baseansi1db19c.sh'], 'rc': 0, 'start': '2023-
08-10 10:02:09.605966', 'stderr': '', 'delta': '0:12:22.452072', 'invocation': {'module_args': {'executable': None, 'chdir': None, 'strip_empty_ends': True, '_raw_params': 'ksh93
/tmp/podba_install_temp/scripts/oracle_install_u02baseansi1db19c.sh', 'removes': None, 'argv': None, 'creates': None, '_uses_shell': False, 'stdin_add_newline': True, 'stdin': None}},
'msg': '', 'stdout_lines': ['Extraced 19c software in /u02/base/ansi1db19c', '/u02/base/ansi1db19c/OPatch unzipped.', '/u02/base/ansi1db19c/clone/rootpre.sh output will be logged in
/tmp/rootpre.out_23-08-10.10:04:12', 'You must be logged in as root to run this script', 'Aborting pre-installation procedure. Installations of Oracle may fail.', 'Oracle install done'],
'stderr_lines': [], 'failed': False, 'item': {'oh': 'u02baseansi1db19c', 'oracle_home': '/u02/base/ansi1db19c'}, 'ansible_loop_var': 'item'}) => {
   "msg": "item"
}
ok: [ansible_db] => (item={'changed': True, 'end': '2023-08-10 10:26:26.306572', 'stdout': 'Extraced 19c software in /u02/base/ansi2db19c\n/u02/base/ansi2db19c/OPatch
unzipped.\n/u02/base/ansi2db19c/clone/rootpre.sh output will be logged in /tmp/rootpre.out_23-08-10.10:16:23\nYou must be logged in as root to run this script\nAborting pre-
installation procedure. Installations of Oracle may fail.\nOracle install done', 'cmd': ['ksh93', '/tmp/podba_install_temp/scripts/oracle_install_u02baseansi2db19c.sh'], 'rc': 0, 'start': '2023-
08-10 10:14:33.591303', 'stderr': '', 'delta': '0:11:52.715269', 'invocation': {'module_args': {'executable': None, 'chdir': None, 'strip_empty_ends': True, '_raw_params': 'ksh93
/tmp/podba_install_temp/scripts/oracle_install_u02baseansi2db19c.sh', 'removes': None, 'argv': None, 'creates': None, '_uses_shell': False, 'stdin_add_newline': True, 'stdin': None}},
'msg': '', 'stdout_lines': ['Extraced 19c software in /u02/base/ansi2db19c', '/u02/base/ansi2db19c/OPatch unzipped.', '/u02/base/ansi2db19c/clone/rootpre.sh output will be logged in
/tmp/rootpre.out_23-08-10.10:16:23', 'You must be logged in as root to run this script', 'Aborting pre-installation procedure. Installations of Oracle may fail.', 'Oracle install done'],
'stderr_lines': [], 'failed': False, 'item': {'oh': 'u02baseansi2db19c', 'oracle_home': '/u02/base/ansi2db19c'}, 'ansible_loop_var': 'item'}) => {
   "msg": "item"
}
```

```
TASK [ibm.power_aix_oracle_dba.oracle_install : Executing root.sh] *************
changed: [ansible_db] => (item={'oh': 'u01basedb19c', 'oracle_home': '/u01/base/db19c'})
changed: [ansible_db] => (item={'oh': 'u02baseansi1db19c', 'oracle_home': '/u02/base/ansi1db19c'})
changed: [ansible_db] => (item={'oh': 'u02baseansi2db19c', 'oracle_home': '/u02/base/ansi2db19c'})

TASK [ibm.power_aix_oracle_dba.oracle_install : debug] *************************
skipping: [ansible_db]

TASK [ibm.power_aix_oracle_dba.db_upgrade : Creating Temp Directory | /tmp/podba_db_upgrade] ***
ok: [ansible_db] => (item=scripts)

TASK [ibm.power_aix_oracle_dba.db_upgrade : Autoupgrade Full DB | Checking database name in /etc/oratab file] ***
changed: [ansible_db] => (item={'source_db_name': 'demo', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u01/base/db19c', 'log_dir': '/u02/base/autoupgrade/dbupgrdlogs',
'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'target_cdb_name': None, 'spfile': '+data/demo/parameterfile/spfile.14471.1143005889'})
changed: [ansible_db] => (item={'source_db_name': 'demodb', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u02/base/ansi1db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile': '+data/demodb/spfiledemodb.ora'})
changed: [ansible_db] => (item={'source_db_name': 'testdb', 'source_db_home': '/u01/dbhome12c', 'target_db_home': '/u02/base/ansi2db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile':
'+data/testdb/parameterfile/spfile.11782.1143057567'})

TASK [ibm.power_aix_oracle_dba.db_upgrade : Fail if database name doesn't exist in oratab file.] ***
skipping: [ansible_db] => (item={'changed': True, 'end': '2023-08-10 10:26:28.997950', 'stdout': '1', 'cmd': "grep demo:/u01/base/db12c /etc/oratab |wc -l |sed 's/ //g'", 'rc': 0, 'start':
'2023-08-10 10:26:28.958475', 'stderr': '', 'delta': '0:00:00.039475', 'invocation': {'module_args': {'executable': None, '_uses_shell': True, 'strip_empty_ends': True, '_raw_params': "grep
demo:/u01/base/db12c /etc/oratab |wc -l |sed 's/ //g'", 'removes': None, 'argv': None, 'creates': None, 'chdir': None, 'stdin_add_newline': True, 'stdin': None}}, 'msg': '', 'stdout_lines':
['1'], 'stderr_lines': [], 'failed': False, 'item': {'source_db_name': 'demo', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u01/base/db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'target_cdb_name': None, 'spfile':
'+data/demo/parameterfile/spfile.14471.1143005889'}, 'ansible_loop_var': 'item'})
skipping: [ansible_db] => (item={'changed': True, 'end': '2023-08-10 10:26:29.391852', 'stdout': '1', 'cmd': "grep demodb:/u01/base/db12c /etc/oratab |wc -l |sed 's/ //g'", 'rc': 0, 'start':
'2023-08-10 10:26:29.352546', 'stderr': '', 'delta': '0:00:00.039306', 'invocation': {'module_args': {'executable': None, '_uses_shell': True, 'strip_empty_ends': True, '_raw_params': "grep
demodb:/u01/base/db12c /etc/oratab |wc -l |sed 's/ //g'", 'removes': None, 'argv': None, 'creates': None, 'chdir': None, 'stdin_add_newline': True, 'stdin': None}}, 'msg': '', 'stdout_lines':
['1'], 'stderr_lines': [], 'failed': False, 'item': {'source_db_name': 'demodb', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u02/base/ansi1db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile': '+data/demodb/spfiledemodb.ora'},
'ansible_loop_var': 'item'})
skipping: [ansible_db] => (item={'changed': True, 'end': '2023-08-10 10:26:29.786155', 'stdout': '1', 'cmd': "grep testdb:/u01/dbhome12c /etc/oratab |wc -l |sed 's/ //g'", 'rc': 0, 'start':
'2023-08-10 10:26:29.746687', 'stderr': '', 'delta': '0:00:00.039468', 'invocation': {'module_args': {'executable': None, '_uses_shell': True, 'strip_empty_ends': True, '_raw_params': "grep
testdb:/u01/dbhome12c /etc/oratab |wc -l |sed 's/ //g'", 'removes': None, 'argv': None, 'creates': None, 'chdir': None, 'stdin_add_newline': True, 'stdin': None}}, 'msg': '', 'stdout_lines':
['1'], 'stderr_lines': [], 'failed': False, 'item': {'source_db_name': 'testdb', 'source_db_home': '/u01/dbhome12c', 'target_db_home': '/u02/base/ansi2db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile':
'+data/testdb/parameterfile/spfile.11782.1143057567'}, 'ansible_loop_var': 'item'})
skipping: [ansible_db]

TASK [ibm.power_aix_oracle_dba.db_upgrade : Autoupgrade Full DB | Checking the status of the Database] ***
changed: [ansible_db] => (item={'source_db_name': 'demo', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u01/base/db19c', 'log_dir': '/u02/base/autoupgrade/dbupgrdlogs',
'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'target_cdb_name': None, 'spfile': '+data/demo/parameterfile/spfile.14471.1143005889'})
changed: [ansible_db] => (item={'source_db_name': 'demodb', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u02/base/ansi1db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile': '+data/demodb/spfiledemodb.ora'})
changed: [ansible_db] => (item={'source_db_name': 'testdb', 'source_db_home': '/u01/dbhome12c', 'target_db_home': '/u02/base/ansi2db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile':
'+data/testdb/parameterfile/spfile.11782.1143057567'})

TASK [ibm.power_aix_oracle_dba.db_upgrade : Fail if database is not up.] *******
skipping: [ansible_db] => (item={'changed': True, 'end': '2023-08-10 10:26:30.313458', 'stdout': '       1', 'cmd': 'ps -ef|grep pmon|grep -v grep |grep -w ora_pmon_demo | wc -l', 'rc': 0,
'start': '2023-08-10 10:26:30.260794', 'stderr': '', 'delta': '0:00:00.052664', 'invocation': {'module_args': {'executable': None, '_uses_shell': True, 'strip_empty_ends': True, '_raw_params':
'ps -ef|grep pmon|grep -v grep |grep -w ora_pmon_demo | wc -l', 'removes': None, 'argv': None, 'creates': None, 'chdir': None, 'stdin_add_newline': True, 'stdin': None}}, 'msg': '',
'stdout_lines': ['       1'], 'stderr_lines': [], 'failed': False, 'item': {'source_db_name': 'demo', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u01/base/db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'target_cdb_name': None, 'spfile':
'+data/demo/parameterfile/spfile.14471.1143005889'}, 'ansible_loop_var': 'item'})
skipping: [ansible_db] => (item={'changed': True, 'end': '2023-08-10 10:26:30.721291', 'stdout': '       1', 'cmd': 'ps -ef|grep pmon|grep -v grep |grep -w ora_pmon_demodb | wc -l', 'rc': 0,
'start': '2023-08-10 10:26:30.668987', 'stderr': '', 'delta': '0:00:00.052304', 'invocation': {'module_args': {'executable': None, '_uses_shell': True, 'strip_empty_ends': True, '_raw_params':
'ps -ef|grep pmon|grep -v grep |grep -w ora_pmon_demodb | wc -l', 'removes': None, 'argv': None, 'creates': None, 'chdir': None, 'stdin_add_newline': True, 'stdin': None}}, 'msg': '',
'stdout_lines': ['       1'], 'stderr_lines': [], 'failed': False, 'item': {'source_db_name': 'demodb', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u02/base/ansi1db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile': '+data/demodb/spfiledemodb.ora'},
'ansible_loop_var': 'item'})
skipping: [ansible_db] => (item={'changed': True, 'end': '2023-08-10 10:26:31.127657', 'stdout': '       1', 'cmd': 'ps -ef|grep pmon|grep -v grep |grep -w ora_pmon_testdb | wc -l', 'rc': 0,
'start': '2023-08-10 10:26:31.075238', 'stderr': '', 'delta': '0:00:00.052419', 'invocation': {'module_args': {'executable': None, '_uses_shell': True, 'strip_empty_ends': True, '_raw_params':
'ps -ef|grep pmon|grep -v grep |grep -w ora_pmon_testdb | wc -l', 'removes': None, 'argv': None, 'creates': None, 'chdir': None, 'stdin_add_newline': True, 'stdin': None}}, 'msg': '',
'stdout_lines': ['       1'], 'stderr_lines': [], 'failed': False, 'item': {'source_db_name': 'testdb', 'source_db_home': '/u01/dbhome12c', 'target_db_home': '/u02/base/ansi2db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile':
'+data/testdb/parameterfile/spfile.11782.1143057567'}, 'ansible_loop_var': 'item'})
skipping: [ansible_db]

TASK [ibm.power_aix_oracle_dba.db_upgrade : Autoupgrade Full DB | Generating response file for autoupgrade] ***
changed: [ansible_db] => (item={'source_db_name': 'demo', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u01/base/db19c', 'log_dir': '/u02/base/autoupgrade/dbupgrdlogs',
'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'target_cdb_name': None, 'spfile': '+data/demo/parameterfile/spfile.14471.1143005889'})
ok: [ansible_db] => (item={'source_db_name': 'demodb', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u02/base/ansi1db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile': '+data/demodb/spfiledemodb.ora'})
ok: [ansible_db] => (item={'source_db_name': 'testdb', 'source_db_home': '/u01/dbhome12c', 'target_db_home': '/u02/base/ansi2db19c', 'log_dir': '/u02/base/autoupgrade/dbupgrdlogs',
'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'spfile': '+data/testdb/parameterfile/spfile.11782.1143057567'})

TASK [ibm.power_aix_oracle_dba.db_upgrade : Autoupgrade Full DB | Analyze mode] ***
changed: [ansible_db] => (item={'source_db_name': 'demo', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u01/base/db19c', 'log_dir': '/u02/base/autoupgrade/dbupgrdlogs',
'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'target_cdb_name': None, 'spfile': '+data/demo/parameterfile/spfile.14471.1143005889'})

TASK [ibm.power_aix_oracle_dba.db_upgrade : debug] *****************************
ok: [ansible_db] => {
    "analyze.results[0].stdout_lines": [
        "AutoUpgrade 23.1.230224 launched with default internal options",
        "Processing config file ...",
        "+--------------------------------+",
        "| Starting AutoUpgrade execution |",
        "+--------------------------------+",
        "3 CDB(s) plus 6 PDB(s) will be analyzed",
        "Job 100 database demodb",
        "Job 101 database testdb",
        "Job 102 database demo",
        "+----+-------+---------+---------+-------+----------+-------+----------------------------+",
        "|Job#|DB_NAME|    STAGE|OPERATION| STATUS|START_TIME|UPDATED|                     MESSAGE|",
        "+----+-------+---------+---------+-------+----------+-------+----------------------------+",
        "| 100| demodb|PRECHECKS|EXECUTING|RUNNING|  10:27:19| 0s ago|Loading database information|",
        "| 101| testdb|PRECHECKS|EXECUTING|RUNNING|  10:27:19|24s ago|Loading database information|",
        "| 102|   demo|PRECHECKS|EXECUTING|RUNNING|  10:27:19|22s ago|Loading database information|",
        "+----+-------+---------+---------+-------+----------+-------+----------------------------+",
        "Total jobs 3",
        "",
        "Job 100 completed",
        "Job 101 completed",
        "+----+-------+---------+---------+--------+----------+-------+----------------------------+",
        "|Job#|DB_NAME|    STAGE|OPERATION|  STATUS|START_TIME|UPDATED|                     MESSAGE|",
        "+----+-------+---------+---------+--------+----------+-------+----------------------------+",
        "| 100| demodb|COMPLETED|  STOPPED|FINISHED|  10:27:19|       |                            |",
        "| 101| testdb|COMPLETED|  STOPPED|FINISHED|  10:27:19|       |                            |",
        "| 102|   demo|PRECHECKS|EXECUTING| RUNNING|  10:27:19| 0s ago|Loading database information|",
        "+----+-------+---------+---------+--------+----------+-------+----------------------------+",
        "Total jobs 3",
        "",
        "Job 102 completed",
        "------------------- Final Summary --------------------",
        "Number of databases            [ 3 ]",
        "",
        "Jobs finished                  [3]",
        "Jobs failed                    [0]",
        "",
        "Please check the summary report at:",
        "/u02/base/autoupgrade/cfgtoollogs/upgrade/auto/status/status.html",
        "/u02/base/autoupgrade/cfgtoollogs/upgrade/auto/status/status.log"
    ]
}

PLAY RECAP *********************************************************************
ansible_db                 : ok=47   changed=24   unreachable=0    failed=0    skipped=9    rescued=0    ignored=0
```

SIHA Version after the upgrade

```
-bash-5.1$ crsctl query has releaseversion
Oracle High Availability Services release version on the local node is [19.0.0.0.0]
-bash-5.1$ hostname
ansible_db
```

Reference output of "deploy" mode:

```
[ansible@x134vm236 playbooks]$ ansible-playbook upgrade_si.yml -i inventory.yml --ask-vault-pass --tags deploy
Vault password:
[WARNING]: running playbook inside collection ibm.power_aix_oracle_dba

PLAY [ansibke_db] **********************************************************************

TASK [ibm.power_aix_oracle_dba.db_upgrade : Autoupgrade Full DB | Deploy mode] ***
changed: [ansibke_db] => (item={'source_db_name': 'demo', 'source_db_home': '/u01/base/db12c', 'target_db_home': '/u01/base/db19c', 'log_dir':
'/u02/base/autoupgrade/dbupgrdlogs', 'start_time': 'NOW', 'upgrade_node': 'localhost', 'run_utlrp': 'yes', 'timezone_upg': 'yes', 'target_cdb_name': None, 'spfile':
'+data/demo/parameterfile/spfile.14471.1143005889'})

TASK [ibm.power_aix_oracle_dba.db_upgrade : debug] ******************************
ok: [ansibke_db] => {
    "deploy.results[0].stdout_lines": [
        "AutoUpgrade 23.1.230224 launched with default internal options",
        "Processing config file ...",
        "+--------------------------------+",
        "| Starting AutoUpgrade execution |",
        "+--------------------------------+",
        "3 CDB(s) plus 6 PDB(s) will be processed",
        "Job 103 database demodb",
        "Job 104 database testdb",
        "Job 105 database demo",
        "+----+-------+---------+---------+--------+--------------+-------+----------------------------+",
        "|Job#|DB_NAME|    STAGE|OPERATION|  STATUS|    START_TIME|UPDATED|                     MESSAGE|",
        "+----+-------+---------+---------+--------+--------------+-------+----------------------------+",
        "| 103| demodb|PRECHECKS|EXECUTING| RUNNING|      18:47:03| 0s ago|Loading database information|",
        "| 104| testdb|    SETUP|PREPARING|FINISHED|Aug-10 18:47:03|       | Scheduled, starts in 0 min|",
        "| 105|   demo|    SETUP|PREPARING|FINISHED|Aug-10 18:47:03|       | Scheduled, starts in 0 min|",
        "+----+-------+---------+---------+--------+--------------+-------+----------------------------+",
        "Total jobs 3",
        "",
        "+----+-------+---------+---------+--------+--------------+-------+--------------------------+",
        "|Job#|DB_NAME|    STAGE|OPERATION|  STATUS|    START_TIME|UPDATED|                   MESSAGE|",
        "+----+-------+---------+---------+--------+--------------+-------+--------------------------+",
        "| 103| demodb|PREFIXUPS|EXECUTING| RUNNING|      18:47:03|20s ago|                          |",
        "| 104| testdb|    SETUP|PREPARING|FINISHED|Aug-10 18:47:03|       |Scheduled, starts in 0 min|",
        "| 105|   demo|    SETUP|PREPARING|FINISHED|Aug-10 18:47:03|       |Scheduled, starts in 0 min|",
        "+----+-------+---------+---------+--------+--------------+-------+--------------------------+",
        "Total jobs 3",
        "",
        "+----+-------+---------+---------+--------+--------------+-------+----------------------------+",
        "|Job#|DB_NAME|    STAGE|OPERATION|  STATUS|    START_TIME|UPDATED|                     MESSAGE|",
        "+----+-------+---------+---------+--------+--------------+-------+----------------------------+",
        "| 103| demodb|PREFIXUPS|EXECUTING| RUNNING|      18:47:03|50s ago|                            |",
        "| 104| testdb|PRECHECKS|EXECUTING| RUNNING|      18:47:03| 0s ago|Loading database information|",
        "| 105|   demo|    SETUP|PREPARING|FINISHED|Aug-10 18:47:03|       | Scheduled, starts in -1 min|",
        "+----+-------+---------+---------+--------+---------------+-------+----------------------------+",
        "Total jobs 3",
        "",
        "+----+-------+---------+---------+--------+---------------+-------+---------------------------+",
        "|Job#|DB_NAME|    STAGE|OPERATION|  STATUS|     START_TIME|UPDATED|                    MESSAGE|",
        "+----+-------+---------+---------+--------+---------------+-------+---------------------------+",
        "| 103| demodb|PREFIXUPS|EXECUTING| RUNNING|       18:47:03|80s ago|                           |",
        "| 104| testdb|PREFIXUPS|EXECUTING| RUNNING|       18:47:03|18s ago|                           |",
        "| 105|   demo|    SETUP|PREPARING|FINISHED|Aug-10 18:47:03|       |Scheduled, starts in -1 min|",
        "+----+-------+---------+---------+--------+---------------+-------+---------------------------+",
        "Total jobs 3",
        "",
        "+----+-------+---------+---------+-------+----------+--------+----------------------------+",
        "|Job#|DB_NAME|    STAGE|OPERATION| STATUS|START_TIME| UPDATED|                     MESSAGE|",
        "+----+-------+---------+---------+-------+----------+--------+----------------------------+",
        "| 103| demodb|PREFIXUPS|EXECUTING|RUNNING|  18:47:03|110s ago|                            |",
        "| 104| testdb|PREFIXUPS|EXECUTING|RUNNING|  18:47:03| 48s ago|                            |",
        "| 105|   demo|PRECHECKS|EXECUTING|RUNNING|  18:47:03|  0s ago|Loading database information|",
        "+----+-------+---------+---------+-------+----------+--------+----------------------------+",
        "Total jobs 3",
        "",
        "+----+-------+---------+---------+-------+----------+---------+-------+",
        "|Job#|DB_NAME|    STAGE|OPERATION| STATUS|START_TIME|  UPDATED|MESSAGE|",
        "+----+-------+---------+---------+-------+----------+---------+-------+",
        "| 103| demodb|PREFIXUPS|EXECUTING|RUNNING|  18:47:03|!140s ago|       |",
        "| 104| testdb|PREFIXUPS|EXECUTING|RUNNING|  18:47:03|  78s ago|       |",
        "| 105|   demo|PREFIXUPS|EXECUTING|RUNNING|  18:47:03|  13s ago|       |",
        "+----+-------+---------+---------+-------+----------+---------+-------+",
        "Total jobs 3",
        "",

        "Job 103 completed",
        "+----+-------+----------+---------+--------+----------+-------+----------------------------------------+",
        "|Job#|DB_NAME|     STAGE|OPERATION|  STATUS|START_TIME|UPDATED|                                 MESSAGE|",
        "+----+-------+----------+---------+--------+----------+-------+----------------------------------------+",
        "| 103| demodb| COMPLETED|  STOPPED|FINISHED|  18:47:03|       |                                        |",
        "| 104| testdb|SYSUPDATES|EXECUTING| RUNNING|  18:47:03|14s ago|The after-upgrade RAC configurations hav|",
        "| 105|   demo|POSTFIXUPS|EXECUTING| RUNNING|  18:47:03|16s ago|                      Refreshing DB info|",
        "+----+-------+----------+---------+--------+----------+-------+----------------------------------------+",
        "Total jobs 3",
        "",
        "Job 104 completed",
        "+----+-------+----------+---------+--------+----------+-------+----------------------------------------+",
        "|Job#|DB_NAME|     STAGE|OPERATION|  STATUS|START_TIME|UPDATED|                                 MESSAGE|",
        "+----+-------+----------+---------+--------+----------+-------+----------------------------------------+",
        "| 103| demodb| COMPLETED|  STOPPED|FINISHED|  18:47:03|       |                                        |",
        "| 104| testdb| COMPLETED|  STOPPED|FINISHED|  18:47:03|       |                                        |",
        "| 105|   demo|SYSUPDATES|EXECUTING| RUNNING|  18:47:03|25s ago|The after-upgrade RAC configurations hav|",
        "+----+-------+----------+---------+--------+----------+-------+----------------------------------------+",
        "Total jobs 3",
        "",
        "+----+-------+----------+---------+--------+----------+-------+----------------------------------------+",
        "|Job#|DB_NAME|     STAGE|OPERATION|  STATUS|START_TIME|UPDATED|                                 MESSAGE|",
        "+----+-------+----------+---------+--------+----------+-------+----------------------------------------+",
        "| 103| demodb| COMPLETED|  STOPPED|FINISHED|  18:47:03|       |                                        |",
        "| 104| testdb| COMPLETED|  STOPPED|FINISHED|  18:47:03|       |                                        |",
        "| 105|   demo|SYSUPDATES|EXECUTING| RUNNING|  18:47:03|20s ago|The after-upgrade RAC configurations hav|",
        "+----+-------+----------+---------+--------+----------+-------+----------------------------------------+",
        "Total jobs 3",
        "",
        "Job 105 completed",
        "------------------- Final Summary --------------------",
        "Number of databases            [ 3 ]",
        "",
        "Jobs finished                  [3]",
        "Jobs failed                    [0]",
        "Jobs restored                  [0]",
        "Jobs pending                   [0]",
        "",
        "---- Drop GRP at your convenience once you consider it is no longer needed ----",
        "Drop GRP from demodb: drop restore point AUTOUPGRADE_9212_DEMODB121020",
        "Drop GRP from testdb: drop restore point AUTOUPGRADE_9212_TESTDB121020",
        "Drop GRP from demo: drop restore point AUTOUPGRADE_9212_DEMO121020",
        "",
        "",
        "Please check the summary report at:",
        "/u02/base/autoupgrade/cfgtoollogs/upgrade/auto/status/status.html",
        "/u02/base/autoupgrade/cfgtoollogs/upgrade/auto/status/status.log"
    ]
}

PLAY RECAP *********************************************************************
ansibke_db                 : ok=6    changed=4    unreachable=0    failed=0    skipped=0    rescued=0    ignored=2
```