

postgresql pacemaker



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- [postgresql](#)
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- Astra Linux Special Edition .10015-01 .10015-10 (1.7) [2022-1110SE17](#) ([1.7.3](#))
- Astra Linux Special Edition .10015-17
- Astra Linux Special Edition .10015-37 ([7.7](#)) [2022-1110SE17](#) ([1.7.3](#))
- Astra Linux Special Edition .10152-02 ([4.7](#)) [2022-1121SE47](#) ([4.7.3](#))
- Astra Linux Special Edition .10015-01 ([1.6](#))



postgresql (. , : , ?) ocf:astra:pgsql. :

- Astra Linux Special Edition x.7 Astra Linux Special Edition .10015-17 [2022-1110SE17](#) ([1.7.3](#)) [2022-1121SE47](#) ([4.7.3](#));
- Astra Linux Special Edition .10015-17;
- Astra Linux Special Edition .10015-01 ([1.6](#)) [20221220SE16](#) ([12](#)).

Astra Linux Linux ocf:heartbeat:pgsql.

, pacemaker. . [pacemaker](#).

192.168.23.101/32 192.168.23.102/32, 192.168.23.100.

pacemaker PostgreSQL . (master), () — (slave). .
() ...:

- [PostgreSQL](#)
- [PostgreSQL](#) [Kerberos](#) [FreeIPA](#)



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postgresql:

```
sudo apt install postgresql
```

postgresql:

1. Astra Linux Special Edition x.7 PostgreSQL 11.
2. Astra Linux Special Edition, x.7, PostgreSQL 9.6.
3. Astra Linux Common Edition PostgreSQL 9.6 .
4. Astra Linux:
 - a. (pacemaker) main.
 - b. postgres (- postgres).

ocf:astra:pgsql, astra-resource-agents:

```
sudo apt install astra-resource-agents
```

postgresql

postgresql ():

1. /etc/postgresql/<_>/<__>/postgresql.conf:

```
listen_addresses = '*'
wal_level = replica
wal_keep_segments = 32
```

2. /etc/postgresql/<_>/<_>/pg_hba.conf :

```
host    replication    postgres    192.168.23.101/32    trust
host    replication    postgres    192.168.23.102/32    trust
```

192.168.23.101/32 192.168.23.102/32 - IP- pacemaker.

3. , , postgresql:

```
sudo systemctl restart postgresql
```

, 192.168.23.101/32 (master), 192.168.23.102/32 - (slave).

postgresql

postgresql, ():

1. postgres :

```
sudo -u postgres sh -c "rm -rf /var/lib/postgresql/*/main/*"
```

2. postgres . (—192.168.23.101). . :
 - a. Astra Linux Special Edition x.7:

```
sudo -u postgres pg_basebackup -h 192.168.23.101 -D /var/lib
/postgresql/<_>/<_> -P
```

- b. Astra Linux, x.7:

```
sudo -u postgres pg_basebackup -h 192.168.23.101 -D /var/lib
/postgresql/<_>/<_> -P --xlog
```

3. postgresql pacemaker. systemd () postgresql :

```
sudo systemctl disable postgresql
sudo systemctl stop postgresql
```

pgsql. :

1. (9.6 11 PostgreSQL). — pgsql. :

- a. , (,) :

```
sudo pcs resource create pgsql ocf:astra:pgsql \
pgversion="<_>" \
rep_mode="sync" \
master_ip="192.168.23.100" \
node_list="pcmk-1 pcmk-2"
```

. man pcs man ocf_astra_pgsql. :

- pgsql — () ;
- ocf:astra:pgsql — ().

b. , (Astra Linux Common Edition) ocf:astra:pgsql ocf:heartbeat:pgsql. :

```
sudo pcs resource create pgsql ocf:heartbeat:pgsql \
pgctl="/usr/lib/postgresql/<_>/bin/pg_ctl" \
pgdata="/var/lib/postgresql/<_>/main" \
config="/etc/postgresql/<_>/main/postgresql.conf" \
socketdir="/var/run/postgresql/" \
rep_mode="sync" \
master_ip="192.168.23.100" \
node_list="pcmk-1 pcmk-2" \
op monitor interval=1min
```



, op (- op monitor interval=1min .

2. :

a. Astra Linux Special Edition x.7:

i. pgsql "" (promotable) . - master slave:

```
sudo pcs resource promotable pgsql promoted-max=1 promoted-
node-max=1 clone-max=2 clone-node-max=1 notify=true
```

. <_>-clone (- pgsql-clone).

ii. :

```
sudo pcs constraint colocation add ClusterIP with master
pgsql-clone INFINITY
```

b. Astra Linux, x.7:

i. -:

```
sudo pcs resource master mspgsql pgsql master-max=1 master-
node-max=1 clone-max=2 clone-node-max=1 notify=true
```

:

- mspgsql — -, ;
- pgsql — .

ii. :

```
sudo pcs constraint colocation add ClusterIP with master
mspgsql INFINITY
```

3. :

```
sudo pcs cluster start --all
```

4. ():

```
sudo pcs status
```

:

```
Cluster name: astracluster
Stack: corosync
Current DC: pcmk-1 (version 2.0.1-9e909a5bdd) - partition with quorum
Last updated: Sat Mar 11 18:40:21 2023
Last change: Sat Mar 11 18:39:28 2023 by root via crm_attribute on pcmk-1

2 nodes configured
3 resources configured

Online: [ pcmk-1 pcmk-2 ]

Full list of resources:

ClusterIP      (ocf::heartbeat:IPaddr2):      Started pcmk-1
Clone Set: pgsql-clone [pgsql] (promotable)
  Masters: [ pcmk-1 ]
  Slaves: [ pcmk-2 ]

Daemon Status:
  corosync: active/disabled
  pacemaker: active/disabled
  pcsd: active/enabled
```

:

```
sudo pcs status
```

:

```
exitreason='Replication(rep_mode=async or sync) requires Master/Slave configuration.'
```

:

```
sudo pcs cluster stop --all
sudo pcs cluster start --all
```

1. .

1. test_db:

```
sudo -u postgres psql -c "create database test_db;"
```

2. , :

```
sudo -u postgres psql -l
```

1. .

2. :

```
sudo pcs status
```

, (demoting). :

```
Cluster name: astracluster
Stack: corosync
Current DC: pcmk-1 (version 2.0.1-9e909a5bdd) - partition with quorum
Last updated: Sun Mar 12 15:17:55 2023
Last change: Sun Mar 12 15:12:38 2023 by root via crm_attribute on pcmk-1

2 nodes configured
3 resources configured

Online: [ pcmk-1 pcmk-2 ]

Full list of resources:

ClusterIP      (ocf::heartbeat:IPaddr2):      Started pcmk-2
Clone Set: pgsql-clone [pgsql] (promotable)
    pgsql      (ocf::astra:pgsql):    Demoting pcmk-1
    Slaves: [ pcmk-2 ]

Daemon Status:
corosync: active/disabled
pacemaker: active/disabled
pcsd: active/enabled
```

:

```
Online: [ pcmk-1 pcmk-2 ]

Full list of resources:

ClusterIP      (ocf::heartbeat:IPaddr2):      Started pcmk-2
Clone Set: pgsql-clone [pgsql] (promotable)
    Masters: [ pcmk-2 ]
    Stopped: [ pcmk-1 ]

Daemon Status:
corosync: active/disabled
pacemaker: active/disabled
pcsd: active/enabled
```

:

1. .. [postgresql](#).
2. /var/lib/pgsql/tmp/PGSQL.lock:

```
sudo rm /var/lib/pgsql/tmp/PGSQL.lock
```

3. :

```
sudo pcs cluster start
```

- , :

Cluster name: astracluster
Stack: corosync
Current DC: pcmk-2 (version 2.0.1-9e909a5bdd) - partition with quorum
Last updated: Tue Apr 11 14:13:34 2023
Last change: Tue Apr 11 14:05:24 2023 by root via crm_attribute on pcmk-2

2 nodes configured
3 resources configured

Online: [pcmk-1 pcmk-2]

Full list of resources:

ClusterIP (ocf::heartbeat:IPaddr2): Started pcmk-2
Clone Set: pgsql-clone [pgsql] (promotable)
Masters: [pcmk-2]
Slaves: [pcmk-1]

Daemon Status:
corosync: active/disabled
pacemaker: active/disabled
pcsd: active/enabled