


🔗 master ▾

Code

 <b>Vonng</b> add supabase support ...	✓ yesterday	🕒 1,986
📁 app	add supabase support	yesterday
📁 bin	add supabase support	yesterday
📁 docs	remove hydra from repo_packages, conflict wit...	yesterday
📁 files	add supabase support	yesterday
📁 roles	remove hydra from repo_packages, conflict wit...	yesterday
📁 templates	fix templates/ soft links to pgsq/ templates	9 months ago
📁 terraform	use cn-beijing-i instead of k to support polardb...	last week
📁 vagrant	add new config spec: check	3 weeks ago
📄 .gitignore	vagrant provisioning overhaul (add libvirt supp...	2 months ago
📄 KEYS	add document	3 years ago
📄 LICENSE	add author name to license file	6 months ago
📄 Makefile	fix building script typo	yesterday
📄 README.md	update releasenote v2.4.0	5 days ago
📄 ansible.cfg	add new config spec: check	3 weeks ago
📄 bootstrap	bump version to v2.4.0	last week
📄 cert.yml	fix cert.yml openssl_csr missing san issue	7 months ago
📄 configure	bump version to v2.4.0	last week
📄 docker.yml	assume os_version = 7 for distribution without ...	2 months ago
📄 etcd.yml	fix etcd.yml typo	last month
📄 infra-rm.yml	rollback grafana.service name to grafana-server	6 months ago
📄 infra.yml	add pgsq-playbook docs	3 weeks ago
📄 install.yml	separate docker from node	7 months ago
📄 minio.yml	update docs	8 months ago
📄 mongo.yml	add ssl certs to ferretdb	last month
📄 node-rm.yml	register node vip to blackbox exporter ping target	last month
📄 node.yml	move vip_dns tasks from role:node to role:nod...	last month
📄 pgsq-db.yml	update minio, etcd, redis docs	8 months ago

## About

PostgreSQL in Great STYLE, Battery-Included Free RDS Alternative!

[pigsty.cc](https://pigsty.cc)

#docker #redis #ansible #distribution  
 #postgres #grafana #prometheus #postgis  
 #etcd #haproxy #minio #high-availability  
 #rds #citus #observability  
 #database-as-code #patroni #dbaas  
 #timescaledb #opensource-alternative

- 📖 Readme
- 📄 AGPL-3.0 license
- 📄 Security policy
- 📄 Activity
- ★ 1.4k stars
- 👁 37 watching
- 🔗 171 forks

Report repository

## Releases 28

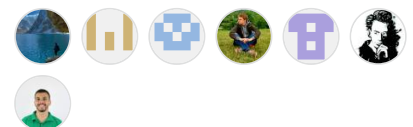
📦 v2.4.0 PG16 & RDS Mon... Latest  
 last week

[+ 27 releases](#)

## Packages

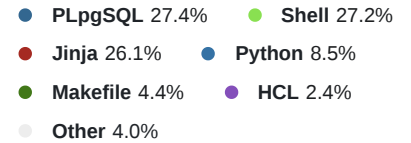
No packages published

## Contributors 7



## Languages

pgsql-migration.yml	add pg migration feature to migrate existing pg...	8 months ago
pgsql-monitor.yml	refactor pg_exporters role: register grafana dat...	last week
pgsql-rm.yml	add docs,usage,util & examples to postgres playb...	9 months ago
pgsql-user.yml	bug fix: pg_mode not exists for create pg users	6 months ago
pgsql.yml	polish document	7 months ago
pigsty.yml	bump version to v2.4.0	last week
redis-rm.yml	fix redis port example in playbook and bin scripts	last week
redis.yml	check redis_sentinel_monitor before render sc...	last week



☰ README.md

# Pigsty

"PostgreSQL In Great STYle."

— A battery-included, local-first, open-source RDS PG alternative.

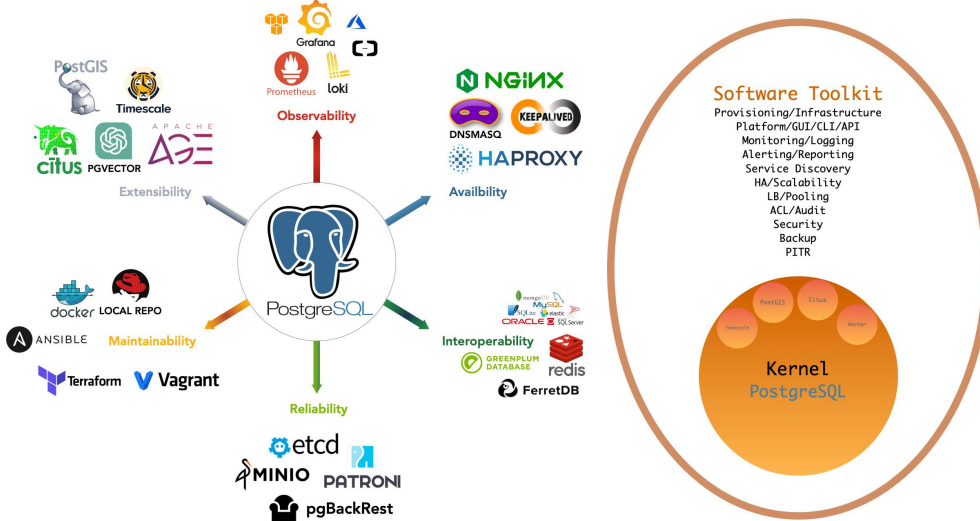
[Release v2.4.0](#) | [Repo](#) | [Demo](#) | [Docs](#) | [Blog](#) | [Telegram](#) | [Discord](#)

[Get Started](#) with `curl -fsSL https://get.pigsty.cc/latest | bash`

## Features

Free RDS for PostgreSQL! Check [Feature](#) | [📄📄📄📄](#) for details.

- Battery-Included [PostgreSQL](#) Distribution, with [PostGIS](#), [TimescaleDB](#), [Citus](#), [PGVector](#), etc...
- Incredible observability powered by [Prometheus](#) & [Grafana](#) stack.
- Self-healing HA PGSQL cluster, powered by [patroni](#), [haproxy](#), [etcd](#).
- Auto-Configured PITR, powered by [pgBackRest](#) and optional [MinIO](#) repo.
- Declarative API, Database-as-Code implemented with [Ansible](#) playbooks.
- Versatile Use-cases, Run [Docker](#) Apps, Run demos, Visualize data with [ECharts](#).
- Handy Tools, provision IaaS with [Terraform](#), and try with local [Vagrant](#) sandbox.
- Run [Redis](#) (standalone, sentinel, cluster), [MinIO](#), [Etc](#), [Haproxy](#), [MongoDB](#)([FerretDB](#)) clusters



- **Battery-Included RDS:** Delivers PostgreSQL 12-16 services on EL7-9, spanning kernel to RDS distribution.
- **Plentiful Extensions:** Bundled with 140+ extensions, time-series, geospatial, full-text-search, vector and more!
- **Flexible Architecture:** Compose Redis/Etcd/MinIO/Mongo modules, monitoring existing cluster and RDS.
- **Stunning Observability:** Leveraging the Prometheus/Grafana stack and provides unmatched insights.
- **Proven Reliability:** Self-healing HA, Automatic Failover, Uninterrupted access, Auto-configured PITR.
- **Great Maintainability:** Declarative API, GitOps ready, Database/Infra-as-Code and Admin SOP
- **Sound Security:** Database is safe as long as your hardware & credentials are safe.
- **Versatile Application:** Docker compose application that using PostgreSQL in one command.
- **Open Source & Free:** Free & open source under AGPLv3. Built for PostgreSQL with love.



## Get Started

Bootstrap with one command! Check [Get Started](#) | [docs](#) for details.

```
# Linux x86_64 EL 7/8/9 compatible, with nopass sudo/ssh
bash -c "$(curl -fsSL https://get.pigsty.cc/latest)";
cd ~/pigsty; ./bootstrap; ./configure; ./install.yml;
```



Then you will have a pigsty singleton node ready, with Web Services on port 80 and Postgres on port 5432 .

- ▶ Download with Get
- ▶ Download with Git
- ▶ Download Directly

```
bash-5.2$ ssh sv
Last login: Sun Aug 20 10:35:51 2023 from 192.168.0.102
s
[08-20 10:38:07] root@vonng-dell:~
$ ssh build-el8
[vagrant@build-el8 ~]$ cat /etc/redhat-release
Rocky Linux release 8.7 (Green Obsidian)
[vagrant@build-el8 ~]$ ls -alh /tmp/pkg.tgz; md5sum /tmp/pkg.tgz
-rw-r--r--. 1 vagrant vagrant 1.4G Aug 20 02:33 /tmp/pkg.tgz
6f4d169b36f6ec4aa33bfd5901c9abbe /tmp/pkg.tgz
[vagrant@build-el8 ~]$ bash -c "$(curl -fsSL https://get.pigsty.cc/latest)"
[Checking] =====
[ OK ] SOURCE from CDN due to GFW
FROM CDN : bash -c "$(curl -fsSL https://get.pigsty.cc/latest)"
FROM GITHUB : bash -c "$(curl -fsSL https://raw.githubusercontent.com/Vonng/pigsty/master/bin/latest)"
[Downloading] =====
[ OK ] download pigsty source code from CDN
[ OK ] $ curl -SL https://get.pigsty.cc/v2.3.0/pigsty-v2.3.0.tgz
  % Total    % Received % Xferd  Average Speed   Time    Time     Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 1207k  100 1207k    0     0  6707k    0     0    6707k    0     0  6707k
MD5: 9a5bf50088c7059e20658cbb4e963b4e /tmp/pigsty-v2.3.0.tgz
[Extracting] =====
[ OK ] extract '/tmp/pigsty-v2.3.0.tgz' to '/home/vagrant/pigsty'
[ OK ] $ tar -xf /tmp/pigsty-v2.3.0.tgz -C ~;
cd ~/pigsty # entering pigsty home directory before proceeding
[Proceeding] =====
./bootstrap # install ansible & download the optional offline packages
./configure # preflight-check and generate config according to your env
./install.yml # install pigsty on this node and init it as the admin node
[Reference] =====
Get Started: https://vonng.github.io/pigsty/#/INSTALL
Documentation: https://vonng.github.io/pigsty
Github Repo: https://github.com/Vonng/pigsty
Public Demo: https://demo.pigsty.cc
Official Site: https://pigsty.cc
[vagrant@build-el8 ~]$
```

## Architecture

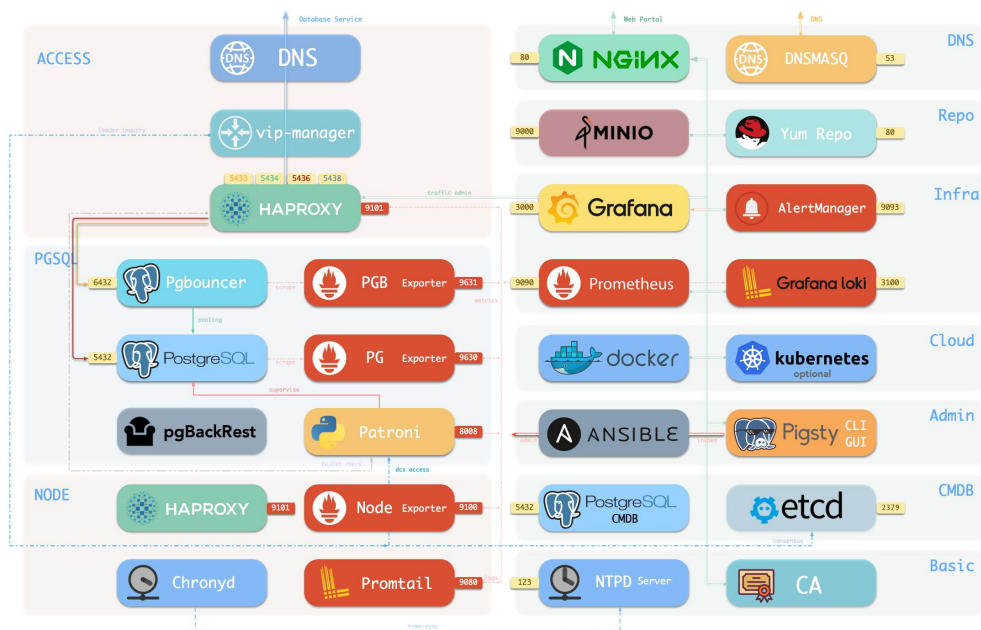
Pigsty uses a **modular** design. There are six default modules available:

- **INFRA** : Local yum repo, Nginx, DNS, and entire Prometheus & Grafana observability stack.
- **NODE** : Init node name, repo, pkg, NTP, ssh, admin, tune, expose services, collect logs & metrics.
- **ETCD** : Init etcd cluster for HA Postgres DCS or Kubernetes, used as distributed config store.
- **PGSQL** : Autonomous self-healing PostgreSQL cluster powered by Patroni, PgBouncer, PgBackrest & HAProxy
- **REDIS** : Deploy Redis servers in standalone master-replica, sentinel, and native cluster mode, optional.

- **MINIO** : S3-compatible object storage service used as an optional central backup server for PGSQL .

You can compose them freely in a declarative manner. If you want host monitoring, INFRA & NODE will suffice. ETCD and PGSQL are used for HA PG clusters, install them on multiple nodes will automatically form a HA cluster. You can also reuse pigsty infra and develop your own modules, KAFKA , MYSQL , GPSQL , and more will come.

The default `install.yml` playbook in [Get Started](#) will install INFRA , NODE , ETCD & PGSQL on the current node. which gives you a battery-included PostgreSQL singleton instance ( `admin_ip:5432` ) with everything ready. This node can be used as an admin center & infra provider to manage, deploy & monitor more nodes & clusters.



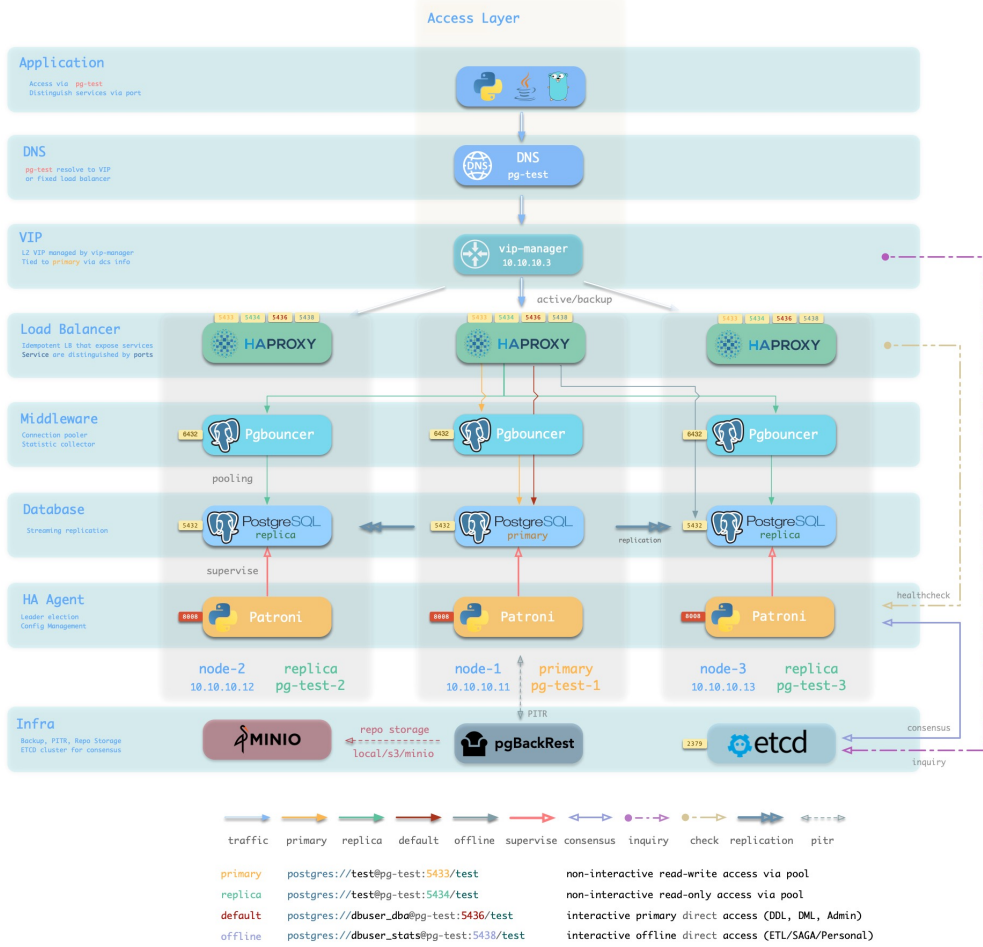
## More Clusters

To deploy a 3-node HA Postgres Cluster with streaming replication, [define](#) a new cluster on `all.children.pg-test` of `pigsty.yml` :

```
pg-test:
  hosts:
    10.10.10.11: { pg_seq: 1, pg_role: primary }
    10.10.10.12: { pg_seq: 2, pg_role: replica }
    10.10.10.13: { pg_seq: 3, pg_role: offline }
  vars: { pg_cluster: pg-test }
```

Then create it with built-in playbooks:

```
bin/pgsql-add pg-test # init pg-test cluster
```



You can deploy different kinds of instance roles such as primary, replica, offline, delayed, sync standby, and different kinds of clusters, such as standby clusters, Citus clusters, and even Redis/MinIO/Etcd clusters.

- ▶ Example: Complex Postgres Customize
- ▶ Example: Security Enhanced PG Cluster with Delayed Replica
- ▶ Example: Citus Distributed Cluster: 5 Nodes
- ▶ Example: Redis Cluster/Sentinel/Standalone
- ▶ Example: ETCD 3 Node Cluster
- ▶ Example: Minio 3 Node Deployment

Check [Configuration](#) for details.

## About

Pigsty (`'pig,staI'`) is the abbreviation of "PostgreSQL In Great **ST**yle."

Docs: <https://doc.pigsty.cc/>

Wiki: <https://github.com/Vonng/pigsty/wiki>

Website: <https://pigsty.cc/en/> | <https://pigsty.cc/zh/>

WeChat: Search `pigsty-cc` to join the WeChat group.

Telegram: <https://t.me/joinchat/gV9zfZraNPM3YjFh>

Discord: <https://discord.gg/6nA2fDXt>

Author: Vonng (rh@vonng.com)

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