

master

667 Branches

1020 Tags

Go to file

Go to file

Code

 JonathanOppenheimer

fix(bootstrapmonitor): resume tests across restarts when the build is...

a8bf7b8 · 17 hours ago

.bazel	chore: bump Firewood to v0.4.0 (#5327)	3 months ago
.github	[ci] Add GPG-signed DEB packages (#518...	3 weeks ago
.vscode	build(tests): require //go:build test tag i...	2 years ago
agents	Clarify Claude PR review prompt and fix h...	last month
api	Remove vms/Manager Mocks (#5198)	3 months ago
app	[bazel] Enable initial build and test (#4544)	4 months ago
bin	[nix] Allow task execution without nix dev...	4 months ago
cache	[bazel] Enable initial build and test (#4544)	4 months ago
chains	remove timeout.Manager mocks (#5192)	3 months ago
codec	[bazel] Enable initial build and test (#4544)	4 months ago
config	Update --helicon-min-stake-duration (#...	2 weeks ago
connectproto	[nix] Upgrade to 26.05 (#5551)	last month
database	Combine merkle/sync p2p handlers (#536...	2 months ago
docs	[bazel] Cache external dependencies to m...	last month
genesis	fix(network): apply ACP-267 uptime thres...	yesterday
graft	fix(core): Potential crash loop at SAE upgr...	19 hours ago
ids	sae: Add C-chain custom tx serialization (...)	3 months ago
indexer	[bazel] Enable initial build and test (#4544)	4 months ago
main	[bazel] Cache external dependencies to m...	last month
message	chore: fix the inconsistent function name i...	2 months ago
nat	[bazel] Enable initial build and test (#4544)	4 months ago
network	fix(network): apply ACP-267 uptime thres...	yesterday
nix/go	[nix] Upgrade to 26.05 (#5551)	last month
node	fix(network): apply ACP-267 uptime thres...	yesterday
proto	feat(vms/evm/sync): add protobuf wire ty...	3 days ago
resources	update avalanche logo	5 years ago
scripts	fix(tags-push): Only push tags one-at-a-ti...	last week
simplex	Set VM Preference on Verify in Simplex (#...	2 months ago
	fix(network): apply ACP-267 uptime thres...	yesterday

snow staging	[bazel] Enable initial build and test (#4544)	4 months ago
subnets	[bazel] Enable initial build and test (#4544)	4 months ago
tests	fix(bootstrapmonitor): resume tests across...	17 hours ago
tools	[bazel] Cache external dependencies to m...	last month
trace	[bazel] Enable initial build and test (#4544)	4 months ago
upgrade	[bazel] Enable initial build and test (#4544)	4 months ago
utils	Remove unused variable NetworkHRPTToN...	3 weeks ago
version	chore: release v1.14.2 (#5135)	4 months ago
vms	chore(sae): Improve observability around ...	yesterday
wallet	ACP-236 (4): Add standard execution and...	last month
x	feat(x/blockdb): prevent multi-process ac...	last month
.bazelignore	[bazel] Enable initial build and test (#4544)	4 months ago
.bazelrc	[bazel] Cache external dependencies to m...	last month
.bazelversion	[bazel] Enable initial build and test (#4544)	4 months ago
.dockerignore	[docker] Silence remaining InvalidDefaultA...	last year
.editorconfig	Cleanup editorconfig (#3473)	2 years ago
.envrc	[bazel] Run all jobs on linux and darwin (#...	2 months ago
.gitignore	[bazel] Run all jobs on linux and darwin (#...	2 months ago
.golangci-warn-assert.yml	style: ban require.Fail/require.FailNow, ...	3 months ago
.golangci.yml	style: ban require.Fail/require.FailNow, ...	3 months ago
.gosec-golangci.yml	[migrate-strevm][7] lint	3 months ago
.linkspector.yml	docs: fix broken links and ignore private o...	7 months ago
.yamllfmt	style: add yamllinter (#5219)	3 months ago
BUILD.bazel	[bazel] Cache external dependencies to m...	last month
CONTRIBUTING.md	Update to Go v1.25.10 (#5361)	2 months ago
Dockerfile	chore: Create shared evm module (#4690)	7 months ago
LICENSE	chore: remove end year from license head...	6 months ago
MODULE.bazel	[bazel] Cache external dependencies to m...	last month
MODULE.bazel.lock	[bazel] Cache external dependencies to m...	last month
README.md	docs: fix run_task.sh script name in READ...	3 days ago
RELEASES.md	Add min delay metrics (#5635)	2 weeks ago
RELEASING_README.md	[ci] Add GPG-signed DEB packages (#518...	3 weeks ago
SECURITY.md	Update bug bounty program to immunefi (...)	3 years ago
Taskfile.yml	[bazel] Cache external dependencies to m...	last month
flake.lock	[nix] Upgrade to 26.05 (#5551)	last month

flake.nix	[nix] Upgrade to 26.05 (#5551)	last month
go.mod	chore(deps): bump google.golang.org/grp...	3 days ago
go.sum	chore(deps): bump google.golang.org/grp...	3 days ago
go.work	Update to Go v1.25.10 (#5361)	2 months ago
go.work.sum	chore(deps): bump google.golang.org/grp...	3 days ago
header.yml	chore: remove end year from license head...	6 months ago
header_upstream.yml	chore: remove end year from license head...	6 months ago

[README](#) [Contributing](#) [BSD-3-Clause license](#) [Security](#)



AVALANCHE

Node implementation for the [Avalanche](#) network - a blockchains platform with high throughput, and blazing fast transactions.

Installation

Avalanche is an incredibly lightweight protocol, so the minimum computer requirements are quite modest. Note that as network usage increases, hardware requirements may change.

The minimum recommended hardware specification for nodes connected to Mainnet is:

- CPU: Equivalent of 8 AWS vCPU
- RAM: 16 GiB
- Storage: 1 TiB
 - Nodes running for very long periods of time or nodes with custom configurations may observe higher storage requirements.
- OS: Ubuntu 22.04/24.04 or macOS >= 12
- Network: Reliable IPv4 or IPv6 network connection, with an open public port.

If you plan to build AvalancheGo from source, you will also need the following software:

- [Go](#) version >= 1.25.10
- [gcc](#)
- g++

Building From Source

Clone The Repository

Clone the AvalancheGo repository:

```
git clone git@github.com:ava-labs/avalanchego.git
cd avalanchego
```

This will clone and checkout the `master` branch.

Building AvalancheGo

Build AvalancheGo by running the build task:

```
./scripts/run_task.sh build
```

The `avalanchego` binary is now in the `build` directory. To run:

```
./build/avalanchego
```

Binary Repository

Install AvalancheGo using an `apt` repository.

Adding the APT Repository

If you already have the APT repository added, you do not need to add it again.

To add the repository on Ubuntu, run:

```
sudo su -  
wget -q0 - https://downloadsavax.network/avalanchego.gpg.key | tee /etc/apt/trusted.gpg.d/avalanchego.asc  
source /etc/os-release && echo "deb https://downloadsavax.network/apt $UBUNTU_CODENAME main" > /etc/apt/sources.list  
exit
```

Installing the Latest Version

After adding the APT repository, install `avalanchego` by running:

```
sudo apt update  
sudo apt install avalanchego
```

Binary Install

Download the [latest build](#) for your operating system and architecture.

The Avalanche binary to be executed is named `avalanchego`.

Docker Install

Make sure Docker is installed on the machine - so commands like `docker run` etc. are available.

Building the Docker image of latest `avalanchego` branch can be done by running:

```
./scripts/run_task.sh build-image
```

To check the built image, run:

```
docker image ls
```

The image should be tagged as `avaplatform/avalanchego:xxxxxxx`, where `xxxxxxx` is the shortened commit of the Avalanche source it was built from. To run the Avalanche node, run:

```
docker run -ti -p 9650:9650 -p 9651:9651 avaplatform/avalanchego:xxxxxxx /avalanchego/build/avalanchego
```

Running Avalanche

Connecting to Mainnet

To connect to the Avalanche Mainnet, run:

```
./build/avalanchego
```

You should see some pretty ASCII art and log messages.

You can use `Ctrl+C` to kill the node.

Connecting to Fuji

To connect to the Fuji Testnet, run:

```
./build/avalanchego --network-id=fuji
```

Creating a Local Testnet

The [avalanche-cli](#) is the easiest way to start a local network.

```
avalanche network start
avalanche network status
```

Bootstrapping

A node needs to catch up to the latest network state before it can participate in consensus and serve API calls. This process (called bootstrapping) currently takes several days for a new node connected to Mainnet.

A node will not [report healthy](#) until it is done bootstrapping.

Improvements that reduce the amount of time it takes to bootstrap are under development.

The bottleneck during bootstrapping is typically database IO. Using a more powerful CPU or increasing the database IOPS on the computer running a node will decrease the amount of time bootstrapping takes.

Generating Code

AvalancheGo uses multiple tools to generate efficient and boilerplate code.

Running protobuf codegen

To regenerate the protobuf go code, run `scripts/run_task.sh generate-protobuf` from the root of the repo.

This should only be necessary when upgrading protobuf versions or modifying .proto definition files.

To use this script, you must have [buf](#) (v1.31.0), `protoc-gen-go` (v1.33.0) and `protoc-gen-go-grpc` (v1.3.0) installed.

To install the buf dependencies:

```
go install google.golang.org/protobuf/cmd/protoc-gen-go@v1.33.0
go install google.golang.org/grpc/cmd/protoc-gen-go-grpc@v1.3.0
```

If you have not already, you may need to add `$GOPATH/bin` to your `$PATH` :

```
export PATH="$PATH:$(go env GOPATH)/bin"
```

If you extract buf to `~/software/buf/bin`, the following should work:

```
export PATH=$PATH:~/software/buf/bin:~/go/bin
go get google.golang.org/protobuf/cmd/protoc-gen-go
```

```
go get google.golang.org/protobuf/cmd/protoc-gen-go-grpc
scripts/run_task.sh generate-protobuf
```

For more information, refer to the [GRPC Golang Quick Start Guide](#).

Running mock codegen

See [the Contributing document autogenerated mocks section](#).

Documentation

In-repo documentation conventions are described in [docs/documentation-guidelines.md](#) . New feature documentation, package-level docs, and maintainer-oriented context should follow that guide.

Versioning

Version Semantics

AvalancheGo is first and foremost a client for the Avalanche network. The versioning of AvalancheGo follows that of the Avalanche network.

- `v0.x.x` indicates a development network version.
- `v1.x.x` indicates a production network version.
- `vx.[Upgrade].x` indicates the number of network upgrades that have occurred.
- `vx.x.[Patch]` indicates the number of client upgrades that have occurred since the last network upgrade.

Library Compatibility Guarantees

Because AvalancheGo's version denotes the network version, it is expected that interfaces exported by AvalancheGo's packages may change in `Patch` version updates.

AvalancheGo is organized as multiple Go modules that must be consumed together at matching versions. For guidance on depending on these modules in your Go projects, see [Depending on AvalancheGo Modules](#).

API Compatibility Guarantees

APIs exposed when running AvalancheGo will maintain backwards compatibility, unless the functionality is explicitly deprecated and announced when removed.

Supported Platforms

AvalancheGo can run on different platforms, with different support tiers:

- **Tier 1:** Fully supported by the maintainers, guaranteed to pass all tests including e2e and stress tests.
- **Tier 2:** Passes all unit and integration tests but not necessarily e2e tests.
- **Tier 3:** Builds but lightly tested (or not), considered *experimental*.
- **Not supported:** May not build and not tested, considered *unsafe*. To be supported in the future.

The following table lists currently supported platforms and their corresponding AvalancheGo support tiers:

Architecture	Operating system	Support tier
amd64	Linux	1
arm64	Linux	1
arm64	Darwin	2
amd64	Darwin	Not supported
amd64	Windows	Not supported
arm	Linux	Not supported

Architecture	Operating system	Support tier
i386	Linux	Not supported

To officially support a new platform, one must satisfy the following requirements:

AvalancheGo continuous integration	Tier 1	Tier 2	Tier 3
Build passes	✓	✓	✓
Unit and integration tests pass	✓	✓	
End-to-end and stress tests pass	✓		

Security Bugs

We and our community welcome responsible disclosures.

Please refer to our [Security Policy](#) and [Security Advisories](#).

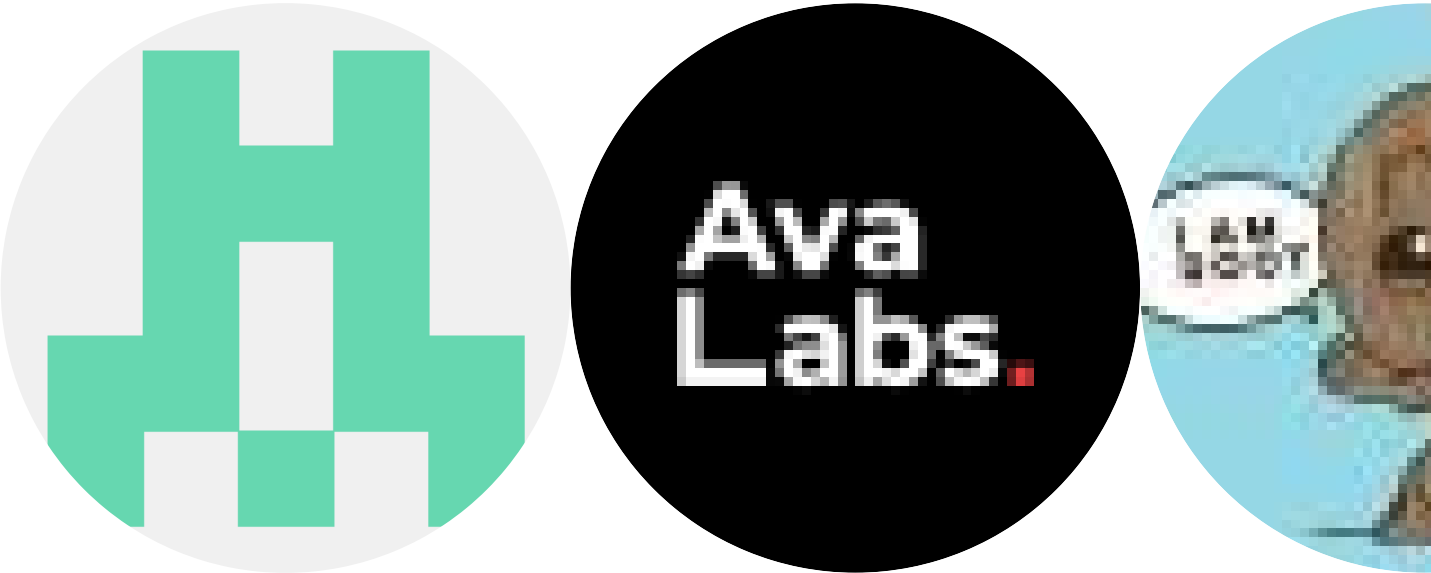
Releases 161

 Granite.2 - Benchlist Redesign Latest

4 months ago

+ 160 releases

Used by 1.4K



Contributors 249



+ 235 contributors

Languages

Go 95.7% Starlark 3.3% Other 1%