Athens Weekly Developer Meeting

Let's talk about <u>Athens!</u> The developer meetings happen every Thursday. Maintainers will share a quick update on the project, and then we will all talk about things on the agenda. *Absolutely everyone* is invited to attend, suggest topics, and participate! You don't have to be a contributor or maintainer to show up and share your perspective, ideas, feelings, etc...

Meeting Details

Check out https://www.meetup.com/The-Athens-Developer-Meeting/ for details on each meeting.

Basics For Each Meeting

- Is anyone new to our group and would like to introduce themselves?
 - You're also welcome to ask a question or ask for help to get started / onboarding
- Let's take 15 mins to look at upcoming issues (for the next milestone)
- Do we have any new folks in the new community who we should encourage to become a contributor or maintainer?

Agenda

If you want to suggest a topic, add a bullet point (under the appropriate meeting day) below with your first name and the topic.

Here are some examples:

- (Aaron) Let's talk about something cool!
- (Someone Else) Let's talk about cool thing #2!

June 13, 2019

- (Chad) Plugin design idea
- Releasing
- Maybe overview of Download File

May 30, 2019

- Release Cycles?
 - https://github.com/gomods/athens/issues/1232
 - https://github.com/gomods/athens/projects/4

May 16, 2019

- We did a release last week!
- We're thinking about webhooks
 - https://github.com/gomods/athens/pull/1195
- Multi-proxy client support
 - https://github.com/gomods/athens/issues/1211
- v1.0.0 release
 - o I think it's worth thinking about what we want, not necessarily doing anytime soon
 - ... because as modules & adjacent stuff evolves, we might need to do breaking changes
 - o ... and I'd like to have the Go compatibility promise for Athens
 - Does anyone think v1.0.0 is a particularly good or bad idea?
- Any other updates / questions about the project?
- Finally, let's go over some different parts of the codebase for newcomers! :)

May 9, 2019

- Walkthrough parts of the code base for new contributors
- Let's do a release soon!
 - https://github.com/gomods/athens/projects/3 is updated with major themes for things we've done
 - Anything missing in the "Stuff we want" column?
- https://github.com/gomods/athens/issues/1211
- Should we implement a mock sumdb so that clients don't have to remember to do a GONOSUMDB?
 - Related: https://github.com/gomods/athens/issues/1105

April 25, 2019

- Patch release for Tini
 - Marwan to release this weekend or Monday
- comma separated GOPROXY
 - We can start making the proxy return 404 now :)
 - Two possible implementations:
 - 404 and ignore
 - 404 and asynchronous fill

April 11, 2019

- Let's talk about a 0.4.0
 - O What do people want to see in it?

April 4, 2019

- Github Bot for CI/CD credentials
- Proper Auth for Athens
- Redirecting if module not found (these are related)
 - https://github.com/gomods/athens/issues/1167
- Caching /list and /latest, and
 - https://github.com/gomods/athens/pull/1175

March 28, 2019

We'll be meeting at this Google Hangout this week: https://hangouts.google.com/call/63gQTwtVYdbTI1MCVnV0AEEE

- Building Athens with Athens: https://github.com/gomods/athens/pull/1138
 - Aaron to fix GCP builds first, then merge Marwan's
- Results of the meeting times vote:

https://github.com/gomods/athens/issues/954#issuecomment-472508105

- Aaron to set up meetups for this
- marwan.io/moddoc integration with athens
 - o Better moddoc integration with Athens
 - Docker compose file?
 - Aaron to contribute this
 - Helm chart?
 - New catalog endpoint format
 - Searching for modules?
 - Built into Athens?
 - Having Athens publish new modules with webhooks?
 - Aaron to create issues for all these ideas
- Distributed Locking: create one file format for storage backends.
 - Aaron to create an issue for Marwan's single-file format
 - o Aaron to add a comment on the issue for the "fourth file" as a header
 - Single file would not allow us to redirect to a CDN. We should consider making Athens redirect to blob storages so we can offload reads
- Github Bot for CI/CD credentials
- Proper Auth for Athens
- Scalability puzzle
 - If Athens has cold storage, you need to scale up really fast to fill up storage on each go get
 - This is especially important if you're running on lightweight "scale-out" systems like FaaS systems

 If Athens has warm storage, everything is pretty much a read and it's cheap. If we have to copy bytes from CDN to the client, we have to scale up unnecessarily

March 21, 2019

I don't think we met this time, but I (Aaron Schlesinger) was unable to make it

- Building Athens with Athens: https://github.com/gomods/athens/pull/1138
- Results of the meeting times vote:
 https://github.com/gomods/athens/issues/954#issuecomment-472508105

March 13th, 2019

The meeting video link will be

https://hangouts.google.com/call/7GHT4tWG0XBdgx3b2oetAEEE this week!

Today we're meeting at 11am US Pacific Time (UTC-7). We may start rotating the meeting time in the future. If we do, all the details will be in this document.

- Meeting times going forward:
 - https://github.com/gomods/athens/issues/954#issuecomment-472508105
 - We're not going to vote today, because that defeats the purpose :)
- s/Travis/Drone!
 - https://github.com/gomods/athens/pull/1091
- Notary: check out

https://github.com/gomods/athens/issues/1105#issuecomment-472719984

Good ideas and advice from Russ Cox

March 7th, 2019

Today we're meeting at 12pm US Pacific Time (UTC-8)! Check out https://github.com/gomods/athens/issues/954 for details

- Patch release for Minio
 - Ship it, Marwan to do this and one of us to tweet about it, save blog post for later when we maybe swap the minio-go client out
- Choosing a Travis alternative
 - Decided to go with Drone
 - Some discussion around secrets
- Quick chat about notary proposal
 - Early phases, lets see how it goes
- Set some good first issue tickets
 - o Chris and others to look through and add where needed

Feb 28, 2019

- Docs site updates? https://github.com/gomods/athens/pull/972
- Getting rid of Travis (https://github.com/gomods/athens/issues/1077)
 - o CircleCl impl: https://github.com/gomods/athens/pull/1084
 - o Drone impl: https://github.com/gomods/athens/pull/1091
- 0.3.0 Release!

February 21, 2019

Back from the dead! https://aka.ms/athensdevzoom

- I think we should get off Travis?
 - o https://techcrunch.com/2019/01/23/idera-acquires-travis-ci/
 - https://twitter.com/EricaJoy/status/1098595526742814722
 - o CircleCI?
 - o DroneCI?
 - o Github Actions?
 - Aaron to find out of GH Actions can spin up background containers
 - ... so we can do e2e tests etc...
 - o Google Cloud Build (https://cloud.google.com/cloud-build/)
 - Azure pipelines
- Testing cloud blob storages
 - How are we gonna pay?
 - Aaron to start by opening the cloud accounts for us
 - Aaron to figure out if MSFT can pay for this in a way that we're not tied directly to MS
 - o Otherwise Aaron to create a Patreon / OpenCollective to pay for it
- Release planning
 - https://github.com/gomods/athens/projects/2
 - Let's also make sure to do a release when go 1.12 comes out
- Distributed Singleflight
 - Updateed, next steps.
 - https://github.com/gomods/athens/pull/1070

December 20th, 2018

- https://aka.ms/athensdevzoom
- Triage issues
- Talk about blog post for Gocenter / Google proxy

December 13th, 2018

- https://zoom.us/j/298533247
 - -> Triage issues
- (Someone Else) Let's talk about cool thing #2!

November 29th, 2018

Today, we just triaged issues

November 15th, 2018

- Beta celebration
- Code freeze
- Carmen to run the query so we have stats on how many projects are using modules
 - Stats can be seen here: https://docs.google.com/spreadsheets/d/1Nsz6qqhzxInvmF8BUbLYKaQZOt9AfC
 WIoDFkLqWcxls/edit?usp=sharing

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 Aaron and Chris are running Athens workshops in their local areas. You should too! Feel free to reach out to anyone for any help.

November 8th, 2018

- (Aaron, admin stuff) keep the meeting time as-is?
 - https://github.com/gomods/athens/issues/852
- (Aaron) Milestone naming oh noes!
 - https://github.com/gomods/athens/issues/876
- (Manu) We might not need buffalo
 - o https://github.com/gomods/athens/issues/870
 - Start by feature flagging a new server and see where it leads to?

November 1st, 2018

Beta homerun

October 25, 2018

• Final naming: https://github.com/gomods/athens/issues/664

October 18, 2018

- (Aaron) Weekly Triagers?
 - https://github.com/gomods/athens/issues/659
- (Aaron) Renaming the project
 - https://github.com/gomods/athens/issues/664

October 11, 2018

- (Manu) GSoC Updates!
- (Aaron) Preview Deployment!
 - https://github.com/gomods/athens/issues/772

October 4, 2018

- (Aaron) Outreachy & GSoC updates?
- (Aaron) Anyone want to write blog posts?
 - We do approximately 1 per week
 - o I'm thinking we can do maybe 2 a week
 - Posts are a great way to get the project (and yourself!) more exposure
- (Aaron) Can anyone join me on the twitter account?
 - Responsibilities are telling the world about new blog posts, reminding people sometimes about dev meetings, and big announcements
- (Marwan / Aaron) Requirements for Beta
 - We have a v0.1.0 milestone now let's add issues under that milestone
 - If you have an issue for v0.1.0, put in in comments and we'll add it
 - Marwan wants more docs, GAE support, easier testing w/o requiring external services (i.e. Minio - PR open for that now), observability for GCP stackdriver
 - Aaron wants CI/CD to publish docker image to dockerhub on push to master and tags (we prob already have that, so this is prob done!), better docs, ideally (not

required for beta, but I'll prob do it before beta) pushing docker image to our "experimental" deployment on pushes to master

- (All) Docs changes prior to beta (Aaron to create issues for these)
 - Update the flow on https://docs.gomods.io/design/communication/
 - Homepage should explain what athens is (i.e. elevator pitch) so we don't have to keep explaining it
 - Homepage should also have links to the dev meeting
 - Docs on .netrc and proxy auth to VCS need to be moved from https://docs.gomods.io/design/proxy/ into install docs
 - We need to scrub olympus stuff from the docs
 - Section header pages (like https://docs.gomods.io/intro/) should at least have a list of the section contents in them
- (All) Docs changes post-beta
 - Meeting notes on the docs site

September 27, 2018

- (Aaron) I have a project that relies on the Athens we have on the internet
- (Aaron) How do we feel about deploying Athens to the internet from master?
- (Aaron) How is Github Voting going? Can we keep using it, or should we find some other way?
 - Can get confusing when >=about 4 options
- (Aaron) Hacktoberfest???
 - Aaron to see if we can get Microsoft t-shirts for Athens PRs, in addition to the DO ones
 - Vineeth to file issues for GSoC and Outreachy, Aaron/Manu/Vineeth to figure out how to do it
- (Aaron) Who is looking for GH reviews?
- Aaron to file some GH issues:
 - What do we need for beta (not sure if this exists already?)
 - Afterward, I will create a GH milestone for beta
 - What/how are we gonna do auth between 'go get' to the Athens server
 - Should we create new repos in the gomods organization with deployment artifacts. For example
 - Terraform artifacts
 - Helm charts
 - Other...

September 20, 2018

- https://github.com/gomods/athens/issues/617 carolyn will close out and cleanup the wiki
- Carolyn is scheduling a meeting with the Go Team to chat about our plans to publish a public beta endpoint of the proxy for people to try out.

September 13, 2018

- Tracing is in!
 - https://github.com/gomods/athens/pull/604
 - Thanks Manu!
- Big config refactor is in
 - https://github.com/gomods/athens/pull/627
 - Thanks Rohan!
- Vote to remove or keep the wiki: https://github.com/gomods/athens/issues/617
- Problems with triaging, PR reviews, and getting discussions / attention on issues?
 - Timothy mentioned CodeTriage as a possible tool for maintainers and also a good tool for people to get started. He's gonna create an issue for this
 - We feel like maintainers should be doing triage at least to start
 - No maintainer should do traige 2 weeks (or other time period?) in a row
 - Goal is to have at least one person a day go through the project and keep its "heartbeat" alive
 - That is the bare minimum, we should still find a way to encourage / make sure that everyone still participates regularly as much as they can
- (carolyn) The great naming debate as continued from slack ;-)
 - Lots of people at GC had no idea what "athens" is
 - Carolyn has ideas for names to signify what we do
 - We also have sub-codenames "athens" and "olympus" wtf are those for? Can we retire those?
 - o Carolyn is gonna open an issue and start a convo in #athens about this
 - Please vote on https://github.com/gomods/athens/issues/664 . If you have another suggestion, please reply to that issue and vote for yours
 - Hopefully we can have a vote in the GH issue (Aaron hopes)
- pkg/cdn removal vote results https://github.com/gomods/athens/issues/503
 - The vote has been open for 27 days. 6 votes (including mine which I just casted) for removing, zero for keeping
 - We're going to remove, Michal to close 503, open a new "good first issue" issue for doing the removal (referencing 503)

September 6, 2018

- (Announcement) First PRs
 - Daphne (dapchen)
 - Others???
- (carolynvs) What is our release strategy (i.e. the expected semver or tag) before GopherCon? Are we going to put out something that people can rely on instead of latest/master?
- The road to v1.0.0

- Beta:
 - More docs for how to deploy the athens proxy
 - Solid deployment = building and pushing the docker image from CI/CD
 - Nice to have: integration tests that run against a newly built docker image (i.e. on a tag release)
- 0 1.0
 - CI/CD pushing to Kubernetes (and other deployment targets?)
 - Improve proxy -> internet auth
 - Improve Go CLI -> Proxy auth
 - See also https://github.com/golang/go/issues/27132
 - Windows support
- (Aaron) Let's talk about proxy auth
 - https://github.com/gomods/athens/issues/587
 - https://github.com/gomods/athens/issues/310

August 30, 2018

- (Announcement) Meeting up at GopherCon on community day: https://groups.google.com/d/msg/gomodsio/TsXV2TyHq-8/IEKnOUTCAQAJ
- (Announcement) First PRs
 - Tobais (tklauser)
 - Others???
- •
- Should we tag issues by module (Olympus / Proxy)?
- Public proxy at: https://microsoftgoproxy.azurewebsites.net/
- Microsoft announces Athens and GopherSource: https://open.microsoft.com/2018/08/28/announcing-project-athens-gophersource-go-community/
- (carolynvs) What is our release strategy (i.e. the expected semver or tag) before GopherCon? Are we going to put out something that people can rely on instead of latest/master?

August 16th, 2018

- Vote results for https://github.com/gomods/athens/issues/416#issuecomment-411861110
 - We decided on <u>https://github.com/gomods/athens/issues/416#issuecomment-411861110</u>
- Vote results for https://github.com/gomods/athens/issues/423
 - There are 2 votes in here, see the OP for descriptions of each
 - Winning vote for redirects: https://github.com/gomods/athens/issues/423#issuecomment-411862230
 - Winning vote for RDBMS: https://github.com/gomods/athens/issues/423#issuecomment-412160149

- [Michal] details of redirect-to-olympus
 - https://github.com/gomods/athens/issues/474
- [Michal] How scalable should proxy be?
 - Should we support multiple replicas of a proxy?
 - We don't have to say "no replicas" for MVP, but maybe we can say "it's ok"
 - Multiple DBs per proxy? Do we need to federate proxy data (i.e. spread module code/metadata) across DB instances?
 - For MVP, we can say no
 - If folks run >1 proxy, how do we deduplicate cache fill requests (https://github.com/gomods/athens/issues/308)
 - There are at least a few phases. Marwan to write them down in issue #308
 - We'll have to support at least dedup support for a single proxy in the MVP

August 9th, 2018

- Community recap
 - 147 Slack members
 - 483 Stars
 - o 43 Forks
 - 22 Total Contributors
 - First PR merged: kdvy
 - Others over the past few weeks?
 - Contributors from 4 Continents!
 - If you know any Antarctic developers, send them our way ▼
- https://github.com/gomods/athens/issues/439 How people can become "maintainers"
- Athens twitter account
- Anything we need to talk about with <u>OpenCensus</u>?
 - (Manu) If OpenCensus is a go ahead, I can start off by writing a middleware and get it up for review over the weekend.
 - (Manu) Is everyone okay about talking about metrics as a different thing to be measured than traces, I think that leads to less confusion
 - Need someone to formally assign this issue to
- Anyone wanna do some docs?
 - Especially on the website (under the docs/ directory)!
 - (Manu)If someone can help me, I would love to update the docs for getting the setup proxy and using it and testing it. So, things can include
 - Writing your first PR
 - Trying out changes hitting the list and other api endpoints to the proxy server and seeing the results out. This is where I really need help with.
 - Carolyn can help get us docs on how to run your own proxy and get setup working on athens.

- A base docker-compose file would be a nice place to point more experienced devs.
 - We have a compose file but it doesn't do everything for you. We can use that as a start! :+1:
 - Because people love yaml
- PR review requirements
 - We now have 1 minimum reviewer before merge is possible
 - We don't seem to have problems with minimum amount of time. Wait til we do?
 - Anyone have any new thoughts on codeowners?
- (Marwan) https://github.com/gomods/athens/issues/416
- (Marwan) https://github.com/gomods/athens/issues/423#issuecomment-411060277
 - Redirect the cli via meta-tag vs HTTP: 301
 - Meta-tag redirect capability allows vanity import naming (like gopkg.in)

August 2nd, 2018

- (Group) Review/Approval/Merge process for PRs ref: slack
 - Required on github side w/ number of approvers
 - Code owner required? GH docs
 - Let's write down a doc on what we decide on
 - PR commits and ease of review (force pushing, rebasing, merge committing)
 - Notes:
 - We need to have a way to determine size of PR, maybe do this at the issue level instead?
 - Use GH features require reviews from people, use codeowners
 - WE might be able to use reviewers instead of time?
 - Let's do "require N reviews" for now, codeowners can kinda fall out of that when we figure out who has "Specialties" in areas
 - Put more descriptions in issues so that people know exactly what to do, some context, and how to know when it's "done" and ready for a complete review. This helps for other reviewers on the PRs (Al for Aaron)
 - README/Wiki to describe the intent for each package/sub-package
 - PR/Issue templates
- (Marwan) Warning: gotip changed cache path
- gDocs (setting up E2E env) (Use up-to-date go in the rest of tests)
- Testing https://github.com/gomods/athens/issues/262
 - Feature flags?
 - Build tags?
 - Add specific test suites to makefile (make mongo-test)
- Storage Performance
 - Benchmark setup for different storage backends

- Streaming data from storage
 - Non-streaming becomes a blocker for storage
- Cloud Deployment (and benchmarking storages)
 - Metrics from test deployments
- Proxy -> Olympus redirecting strategy
 - https://github.com/gomods/athens/issues/349#issuecomment-409273855
 - Configure redirect with tagged module storage
- Add test repos https://github.com/gomods/athens/issues/340
 - Correct and error modules published by CVS, fork/use directly
- (Marwan) Migrate **storage**.lsNotFoundErr to **errors**.lsNotFoundErr
 - Done, error work is all in errors pkg
 - Error Kinds can be added for handling errors
- (Marwan) Olympus/CDN difference?

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- (Marwan) Option to only store tags on proxy as well (SHAs can be a memory expense in fast dev cycles)
 - Hard limit on number of hashed modules
 - Can lead to re-caching old data.
 - Most-used vs most-recently-used
- (Marwan) better error handling from running go get internally. Subdirs are unexpected.
 - No good way to parse the output on failed get runs
 - Go team help?
 - Pattern matching?
- (Marwan) should storage. Backend be able to fetch mod/info/zip separately?
 - Wasting resources fetching zips when go only needs, say, mod file
 - Split interface to look for each object
 - Possibly after beta
- (Manu) Next steps for tracing. Specifically, how do I test it?
 - Getting buffet/jaeger set up, walkthrough
 - o Brian's presentation
 - Commonizing opname

July 26, 2018

- Questions
 - (Marwan) Should Athens do validation on go.sum or does cmd/go handle all of this? A: delegate to cli for now.
 - (Marwan) Should we have the option to turn off Proxy Caching? Why duplicate all that precious space since the proxy can just redirect to registry? A: potentially yes
 - (Marwan) Should /list even look at storage? It's always gonna be the most update from upstream. A: we should probably always look upstream for now

- (Marwan) hybrid sync/async cache filling once GOPROXY can redirect Go to VCS?
- (Aaron) <u>Big Kahuna</u> issue status

July 19, 2018

- Doing cache fills synchronously or asynchronously?
 - https://github.com/gomods/athens/issues/290
 - We can do synchronously vgo get is gonna add functionality to give us just the mod, info and zip
 - Also, we're gonna work with the CLI to make sure that timeouts don't kill the UX
 - o I (Aaron) am changing my stripes I think we should do synchronous fills
- Update on "redirects"
 - https://github.com/golang/go/issues/26334#issuecomment-405661277
 - tl;dr the proposal is to put a comma-separated list into GOPROXY with a prioritized list of where vgo should look. 'direct' means that on 404, vgo should go directly to the source and ignore the proxy
 - See the synchronous v. asynchronous bullet below
- Handling duplicated logic (vgo & athens) for handling commit sha modules
 - We may not have to do this anymore what if we can get vgo to download us the mod, info and source zip???
- Server-side redirects to GH (and other code hosting sites) zip files?
 - We don't need to do this anymore if we fill synchronously
- [carolynvs] What's the status of athens working from master yet? Can I try it and expect it to work yet?
 - Carolyn will help review the big kahuna prs and then add a little test for our CI that uses go tip to go get against our proxy

July 12, 2018

- What do we do on a cache miss?
 - Marwan found that with GOPROXY set, vgo will not check the ?go-qet=1 URL
 - That means it's impossible for us to do VCS redirects
 - Which means that we can't fill caches in the background on a cache miss....
 - O What to do?
 - Ongoing discussion: https://github.com/gomods/athens/issues/241
- Naming confusion? Athens is an "umbrella" name and Olympus, Zeus are sub-projects...
 - Should we just have "Athens" and then proxy and registry?

July 5, 2018

- (Aaron) Some notes:
 - Intros

- o Design docs:
 - https://github.com/gomods/athens/wiki/The-Central-Package-Registry-(Olympus)
 - https://github.com/gomods/athens/wiki/Proxies-(Zeus)
- Two blog posts up:
 - https://medium.com/@arschles/project-athens-the-download-protocol-2b3 46926a818
 - https://twitter.com/arschles/status/1012393366024261632
- Is PR review going too slow? If so, '@' folks in the channel for now. We're small enough to make that work:)
- (Aaron) hosting a prototype on the interwebz. Also, who has run Athens locally?
- (Group) How to deal with force pushes recap

June 28, 2018

We didn't meet today

June 21, 2018

- (Aaron) Intro to the project
- (Aaron) The difference between proxies (Zeus) and Olympus