

Cosmos Hub - Confio Funding Proposal

Tranche One

On Chain: Feb 15, 2023

Summary

This is a community spend proposal. If it passes, it will transfer the ATOM equivalent of \$1.25M to support the Confio team in their stewardship of CosmWasm, CosmJS, and many other related repos. This is 95 697 ATOM at the current 30-day moving average price.

This is based on [a forum discussion](#) about providing a total of \$2.5M of support in two tranches to Confio. Confio will most likely apply for a second tranche in August, but the size requested will be adjusted by any other funding we have secured in the meantime, as we are applying for other sources.

Purpose

Strengthening the ATOM Economic Zone through support and Public Goods.

Confio is the team responsible for the stewardship and development of a huge number of libraries fundamental to many developers in the Cosmos. The best known are the CosmJS & CosmWasm libraries, two key components of the Cosmos software stack, but you can review the [list of dozens of repositories](#) Confio maintains. These libraries are highly valued by developers and chains across the Cosmos ecosystem. In addition, they focus on expanding IBC protocols by developing IBC-enabled contracts and training others how to do so as well.

Confio is also prepared to offer some services and support for the success of Cosmos Hub secured consumer chains in exchange for such funding support. This will be defined more below, but it should be clear that there are also tangible benefits for the Cosmos Hub through this proposal.

Why should the Hub fund Confio?

Hard vs. Soft Power

In the coming months, a software upgrade proposal to adopt Gaia v.9.0.0 will be raised to the Cosmos Hub. This proposal will include replicated security, which will allow other blockchains to "lease" the security of the Cosmos Hub, making it as difficult to perform an economic attack on a consumer chain as it would be to perform the same attack on the Hub itself. We can think of this as the Hub granting its "economic security" to the consumer chain. This can be thought of as a form of hard power.

In politics, hard power is the use of economic or military means to influence behavior. In our particular cryptographic environment, we can easily extend the metaphor to the use of economic security as an incentive to attract developers. In the Interchain ecosystem, we will see a marketplace of consumer chains seeking this economic security as a service.

However, this is a narrow view of the environment that consumer chains will be navigating. They will not only seek economic security, but are also likely to seek healthy governance precedent, adequate tooling, financial support, and access to human resources like talent, ideas, and users.

It should be clear from the above paragraph that hard power is only one means of exerting influence. In order to further strengthen the Hub's position as a hub in the interchain, soft-power is another key component.

In politics soft power is defined as the use of economic or cultural influence to influence behavior. In our cryptographic environment it can be thought of as the intangible areas that consumer chains will need beyond economic security.

It is worth noting that a complex interplay of relationships across chains in the Interchain is one of the central components of the Cosmos ethos, and the Cosmos Hub's primary value proposition is to provide a firm foundation for navigating these relationships. By serving as this foundation, the Cosmos Hub and its stakeholders will accrue token fees of the chains that use its services. Thus, the Cosmos Hub is incentivized to provide the highest quality experience (in terms of both hard and soft power) for all those that choose to form a relationship with or around it. By doing so, it will attract the highest-quality talent and cement its role as an irreplaceable hub.

Funding Public Goods

With the view of soft power in mind, it is clear that funding the maintenance and stewardship of two key components of the Cosmos software stack is valuable to the Cosmos Hub. Developers highly value both CosmWasm and CosmJS, and consumer chains of the Cosmos Hub are highly likely to utilize these libraries in the emergent value they create for the ecosystem.

By funding Confio, the Cosmos Hub asserts its willingness and ability to support the highest quality tooling in the Cosmos network, and thus support the chains that wish to use these tools.

Supporting the Confio team is a valuable step in providing the intangible human resources that developers will look for when they are seeking a home for their next great idea.

Support For Consumer Chains

Additionally, Confio can provide tooling and support to help promote the success of various CosmWasm-enabled consumer chains. The exact scope of such support should be refined, but as a guide, some ideas we had are:

- Providing reasonable technical support to CosmWasm-based Hub consumer chains (eg wasmd integration, extensions, etc)
- Prioritize the needs of the Cosmos Hub (and consumers) in our backlog and roadmap
- Providing off-chain developer tooling supporting the Hub and its consumer chains
- Contribute as needed to development of ICS technology
- Integrating advanced IBC protocols in Hub consumer chains

We are open to feedback to refine this list, but we want to make sure this is a two-way street, and the Cosmos Hub also benefits directly from the support they are considering to grant Confio.

Security and Maintenance

The main point of this grant is to provide Confio [funding to resume their Public Goods work](#). Key among this is ensuring the security and stability of the entire software stack they maintain. Keeping all repositories updated with the latest dependencies (like upcoming Cosmos SDK and Wasmer releases) and actively monitoring potential security issues requires significant resources. Engaging with the community, adding minor features and bugfixes as needed, and reviewing incoming PRs, requires even more resources.

Confio now maintains at [least 20 significant open-source repositories](#) critical for the functionality and security of many blockchains. The increasing work to support all of these as a desired level of security and stability is often unseen or brushed under other milestones, but this in fact was the largest source of concern when we announced we would freeze Public Goods work – that many blockchains are potentially at risk of attack due to unmaintained software dependencies.

Maintenance is a continuous process that covers the following items:

- Watch all dependencies for important updates
- Monitoring multiple channels for security alerts
- Reviewing, triaging, and resolving bug reports from users
- Reviewing and possibly implementing feature requests from users
- Monitoring chat platforms for issues and needs of users
- Responsible notification of involved parties on any known security bug
- Improving test coverage
- Improving code-level documentation

Simply keeping this all working well and preemptively patching bugs before they damage any chains requires several senior engineers.

Rough Roadmap

In addition to ongoing maintenance and support for CosmWasm consumer chains, Confio would like to improve these tools, and especially expand support for IBC development in 2023. The following is a semi-optimistic roadmap of new functionality that Confio would like to develop. It is likely we won't accomplish everything on the list, but with adequate funding, we should accomplish many items, and likely others not on the list.

This is not a promise of deliverables, but a general guide to what you can expect if Confio is adequately funded from numerous sources:

Q2

Much energy will be spent grooming frozen repos, cleaning up issues and PRs, and charting upcoming milestones, as well as preparing for features to be finished in Q3. The following should be completed:

- Full wasmd support for Cosmos SDK 0.47.0, including participation in testnets and help debugging.
- Ensure full CosmJS support and compatibility for Cosmos SDK 0.47
- Ensure wasmd (junod/osmosisd/neutrond) *client* builds and runs on Windows machine (no-cgo)
- Implement enhanced ics20 as a CosmWasm contract
 - Full ics20 token transfers, [contract callbacks](#), and sending/receiving [Osmosis memo-field extension](#)
- Prepare ts-relayer for better usage in CI
- Integrate CosmJS with Cosmology tools to greatly reduce build size and optimize performance
- CosmWasm Academy: Prepare videos on multi-contract development and testing

Q3

- Safely enable floating-point operations in CosmWasm contracts (lots of prep in Q2)
- Ensure ts-relayer works between major testnets
- Extend multi-test to model IBC contract workflows (high level APIs inspired by ts-relayer based tests)
- Implement general purpose DeFi-enabling protocol enabling composition of token transfers and contract calls in simple, atomic manner, including:
 - ICS20 token transfer
 - Interchain Accounts (ICS27) functionality (over one shared channel)
 - Interchain Queries functionality (over same channel)

- Fee handling similar to ICS-29
- Multi-hop token routing (sending tokens Juno -> Osmosis -> Hub with one message on original sender)
- Successful AwesomWasm conference and Hackathon (July 12-16) - Q2 is full of organizing work
- Academy: Prepare videos on IBC contract development and testing
- Improve major pain points in [Sylvia framework](#), bringing it to beta
- Implement Sign Mode Textual in CosmJS

Q4

- Release wasmd 1.0!
- Wasmd server running on Windows machine (for local testing)
- TS-Relayer is more robust for real-world usage
- TS-Relayer support for enhanced fee/gas/ordering calculations and filtering
- Support for gRPC in CosmJS (if gRPC supports all needs)
- CosmJS support in React Native
- Release Sylvia 1.0
- Prepare videos on Sylvia contract development and testing

Use of Funds

Confio currently has a burn rate of circa 230k USD/month with around 90% of outgoing payments going to salaries. All funds from this proposal will go to pay salaries of employees. Principally developers, but also marketing/community building work (for the conference) and internal support (HR / accounting) needed to keep the company running.

Our headcount has been reducing and as of the end of February 2023, we will have 20 employees, including 10 developers and 1 product owner (one more if Ethan gets to code again and stop fundraising). To achieve this roadmap while performing a proper level of security and maintenance work, we will need around 25 people focused on Public Goods.

Execution Details

Community Pool Spend

Assumptions

All of the following statements are made using the following assumptions:

- Confio will apply for two tranches of \$1.25M each. This is for that total spend. If the second tranche is reduced, the total cost to the community pool will be significantly less.

- The ATOM price used in calculations is \$13.062, which is the 30 day moving average price of ATOM as of February 13th.
- Proposal 95 has passed, and those 588,000 ATOM have been dispensed
- The calculations used to determine the community pool budget can be found here: <https://docs.google.com/spreadsheets/d/1Bb6RZbL4YWe6LdWD7o1-TSuMMCIpbD6X0S1I4vAux4l/edit?usp=sharing>
- In the spreadsheet, the Hub funds Confio's entire yearly expense. A more optimal outcome would be interchain collaboration in which each chain funds a percentage of Confio's needs.

Pool Percentage

- Funding Confio with the ATOM equivalent of \$2.5M from the Cosmos Hub equates to less than 1% of the USD value of the community pool on a monthly basis.
- Each tranche of community pool spend will consume for ~5.4% of the total ATOM in the community pool.

Payment Details

The process for the community pool spend will be as follows:

ATOM Amounts & Sale Terms

- Fund Confio with the ATOM equivalent of \$2.5M with two separate community pool spend proposals, each requesting the ATOM equivalent of \$1.25M.
- The actual ATOM request in each proposal will be based on 30 day rolling average price before the proposal goes on chain. Thus the ATOM request in the second tranche will be adjusted to be reasonable.
- The ATOM will be sent to a multisig and should be properly managed and slowly liquidated when the market can handle it.
 - Each tranche will be sold over a period of at least 100 days.
 - Sales will be paused on any week the price has gone down 5% or more (regardless of how much is due to our impact on the price)

Fund Release

- The funds will be released to a 2 of 3 multi-sig wallet owned by Confio GmbH with the following 3 signers:
 - Ethan Frey
 - Simon Warta
 - Martin Wornier
- The multisig address is <cosmos12jnhpa3kemykq5mg8er27lmkj39yksgf3nr9tw>

- Confio will release a statement declaring receipt of the funds and the resumption of public goods work
- A public report of work done will be issued in August, before the application of the second tranche. The purpose of this report is to solicit feedback from relevant stakeholders on the work Confio is doing and provide a chance for discussion of any adjustments in Hub-specific services.

Responsible Funding

- It is in no one's interest that Confio is solely dependent on the Cosmos Hub in the long term.
- Confio will approach a number of other chains for similar community spend proposals.
- Having funding secured over a larger number of tokens reduces sell pressure on any one of them and allows more of the funds to be held and staked.
- While we would like to request the stated funds from the Hub regardless of success in other funding sources, success there would extend the duration that said funding could support. Confio is committed to working with the Hub within the scope of this proposal.

Community Spend Proposal

We have socialized this proposal on the Cosmos Hub forum, Twitter, and are working on various AMAs. All feedback has been positive, and the requested information on roadmap and use of funds has been added.

With that in mind, we decided to skip the original idea of a signaling proposal step (which has not been typically used on the Cosmos Hub) and go directly to a community spend proposal for the first tranche. The request size for the second tranche depends on many factors, including market situation, other funding that Confio raises, and delivery of the roadmap; so, it would be difficult for the Hub to commit to a size for future spend until this situation clarifies.

Voting Outcomes

- If this proposal passes, 95 697 ATOM will be transferred to Confio GmbH to sponsor their public goods work. Confio pledges to use the funds to make a best effort attempt to complete the roadmap provided above, and will also provide additional support to Cosmos Hub-based consumer zones as described in the proposal.
- If this proposal is rejected, Confio will maintain the Public Goods freeze and continue looking for other funding sources. Confio will not implement the proposed special support for Hub-based consumer zones.

Voting Choices

- If you vote yes you signal your desire to compensate Confio via the Cosmos Hub community pool.
- If you vote no you signal your dissent against compensating Confio via the Cosmos Hub community pool.
- If you veto this proposal you deem it harmful to the network and wish to burn the proposer's ATOM.
- If you abstain you signal your desire to contribute to quorum without a preference toward whether the proposal passes or fails.