

# Internet Computer Protocol Ecosystem Report

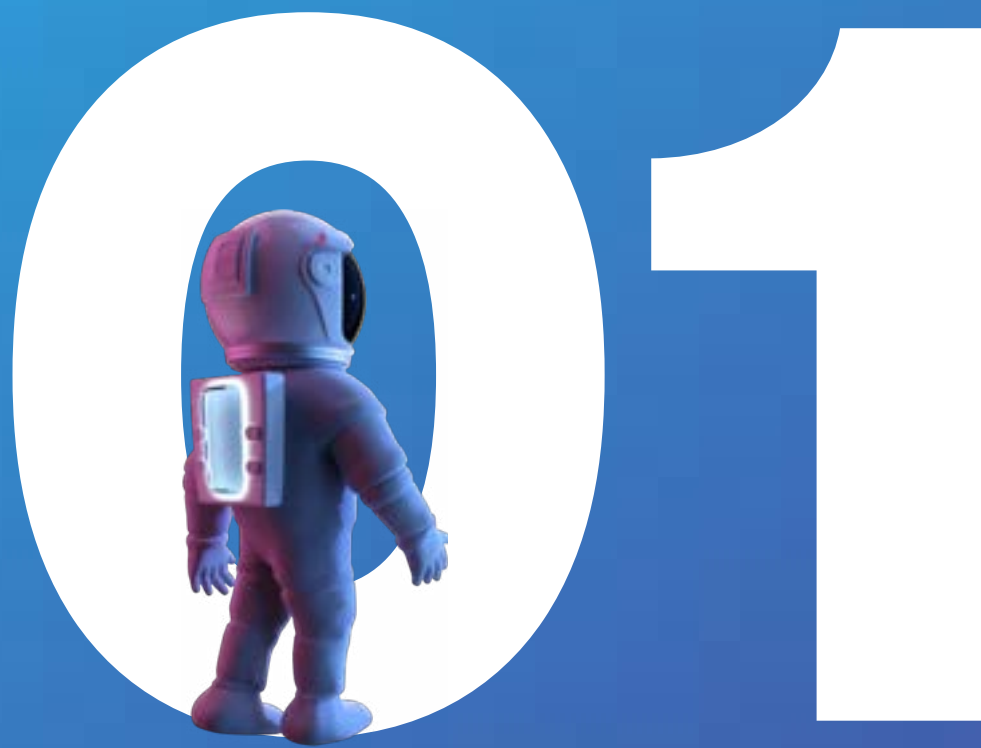


**03/2024**

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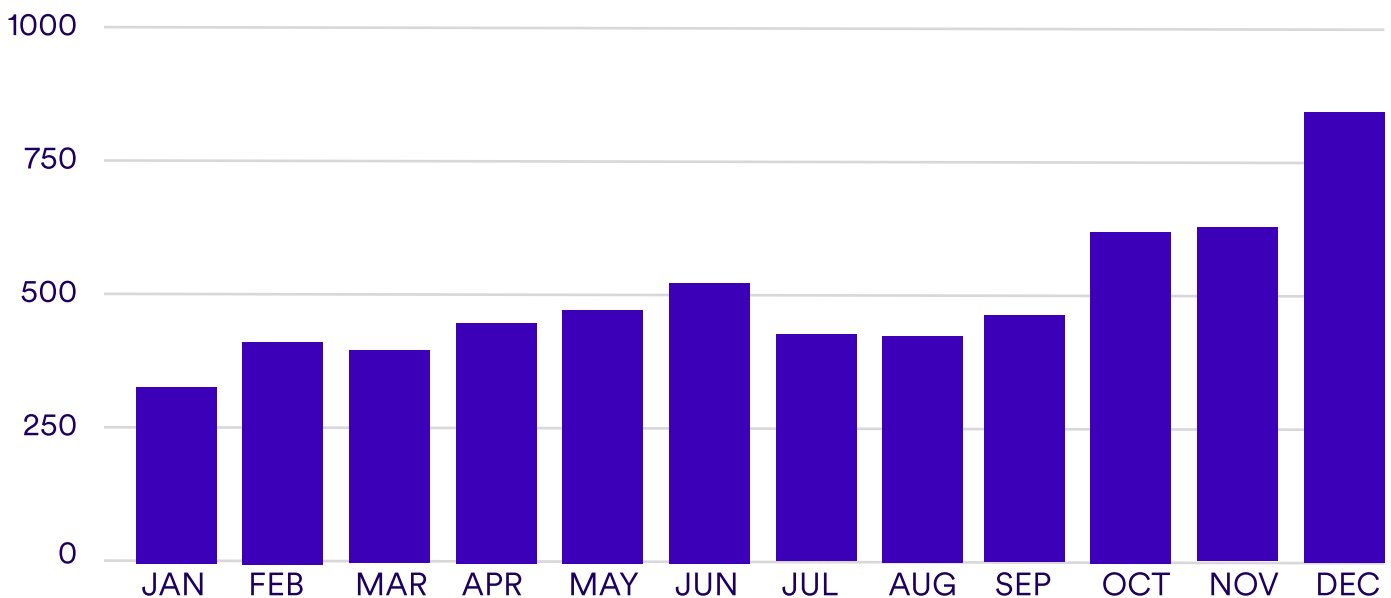
**INTRO**  
**&**  
**STATS**



# Introduction

2023 was one of the toughest years for our industry, yet the Internet Computer ecosystem experienced growth in many areas. Network usage, measured in cycles burned, grew from an average of 331 Trillion(T) cycles per day in January to 734T cycles/day in December, a 121% increase. Usage growth was experienced broadly across most subnets, suggesting the growth is ecosystem-wide.

Avg Cycles Burned (Trillion) Jan-Dec 2023



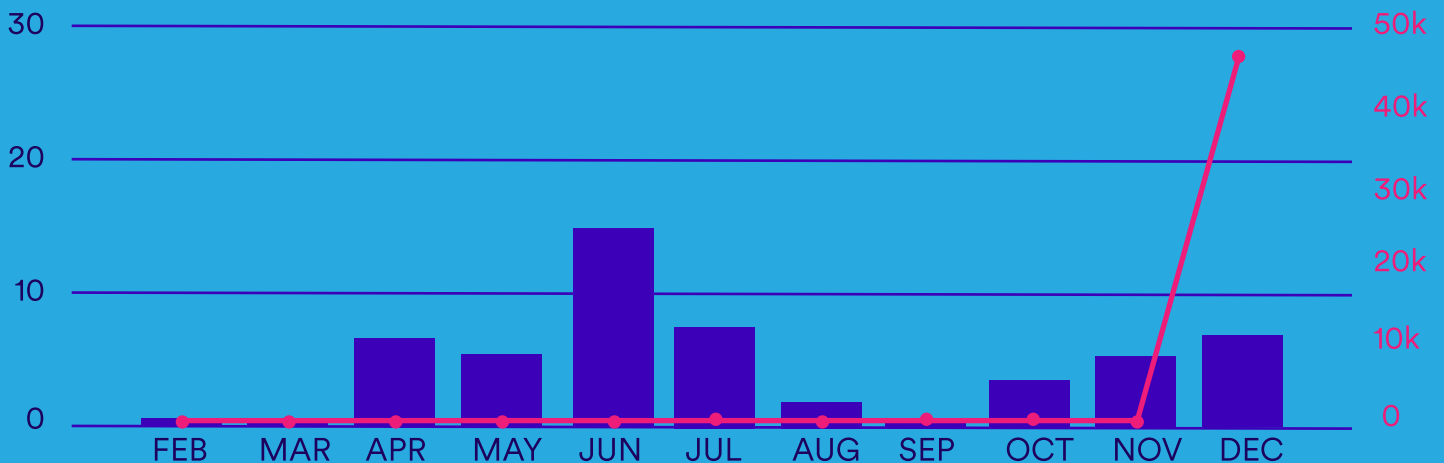
# BITCOIN INNOVATION

Native Bitcoin integration was a technological milestone for our industry, which coupled with the success of BRC-20 tokens and ordinals in the latter half of 2023 sparked a flame of Bitcoin innovation on ICP and December saw the launch of Bioniq, an ordinals launchpad and marketplace, and a plethora of BRC-20 projects. Many other Bitcoin-focused projects started building on the IC as well, including a decentralized mining pool (Loka Mining) and an IC-based NOSTR client (Nostric). This innovation has resulted in increased usage of ckBTC, an ICP 1:1 digital twin of BTC. Supply of ckBTC grew 66% in December 2023 alone (a growth rate that has continued into 2024). December also saw over a million ckBTC transactions, totalling over \$67M in value.



## ckBTC

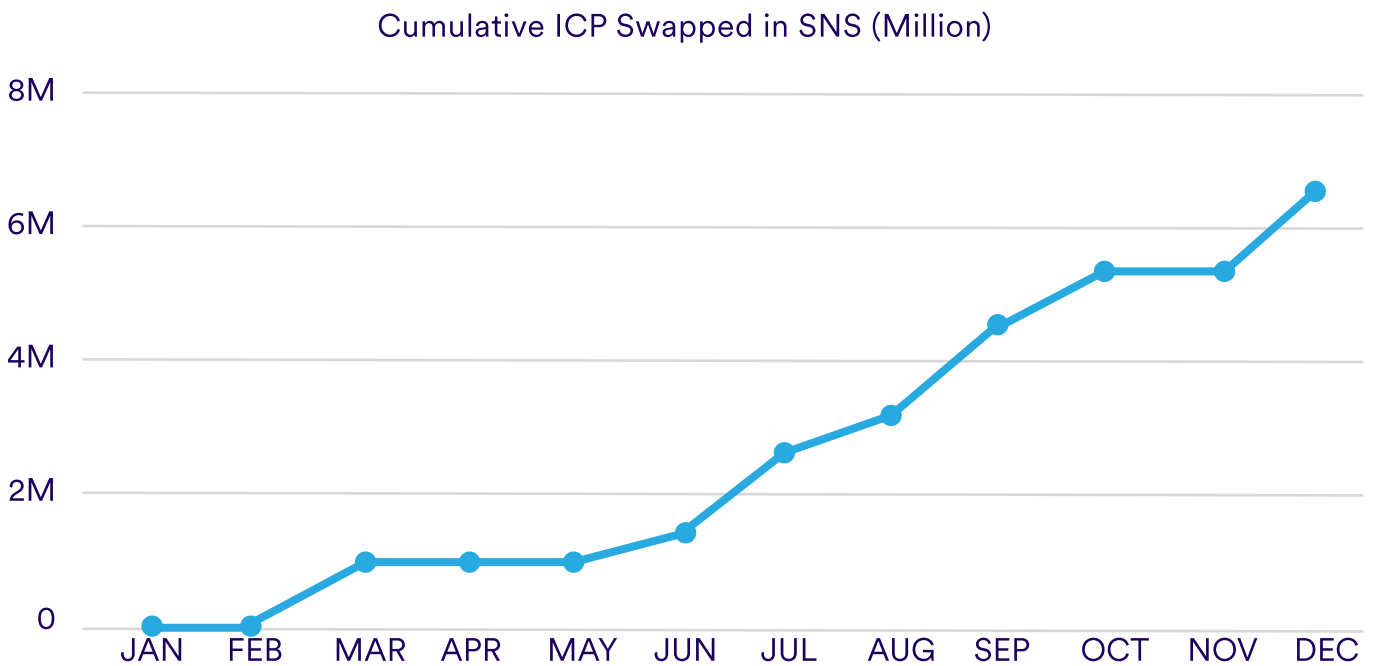
■ Avg. Volume per day (transfer only) ● Avg. Txns/day



The multi-chain narrative for the Internet Computer ramped up in December 2023 with the launch of the first phase of ETH integration, ckETH. Like ckBTC, ckETH is a 1:1 digital twin of ETH. Supply of ckETH grew to 674 ckETH (\$1.5M) by the end of December.

With the upcoming ckERC20 and EVM RPC, scheduled for release in the first half of 2024, for the first time ever developers will be able to build applications that leverage both Bitcoin and Ethereum liquidity and users without their users needing to leave the app. This innovation, coupled with DFINITY’s plans to integrate directly with Solana in 2024, is a step-change innovation for our industry and should unlock incredible user experiences on Bitcoin, Ethereum and Solana.

2023 also set a new high-water-mark for our industry in truly decentralized applications with the adoption of the SNS framework. This framework allows any ICP application to delegate its control to a DAO, forming a truly decentralized application in which all components can be placed within the control of a DAO. 14 apps leveraged the SNS framework in 2023 and participants swapped a total of 6.5M ICP (~\$80+M) as part of the decentralization process.



The Internet Computer took many steps forward in 2023 and developers have taken notice. ICP was one of the fastest growing blockchains in Electric Capital’s 2023 Developer Report. Multi-chain integrations, and the innovative apps they enable, as well as the liquidity and user pools they can access, will be a major driver of growth for the Internet Computer in 2024. We look forward to leading the industry into its next phase of growth through innovation and community unity.

Let’s build the future together,

DFINITY Foundation

# Facts & Figures

**239**

Number of teams that raised grant funding in 2023

FROM

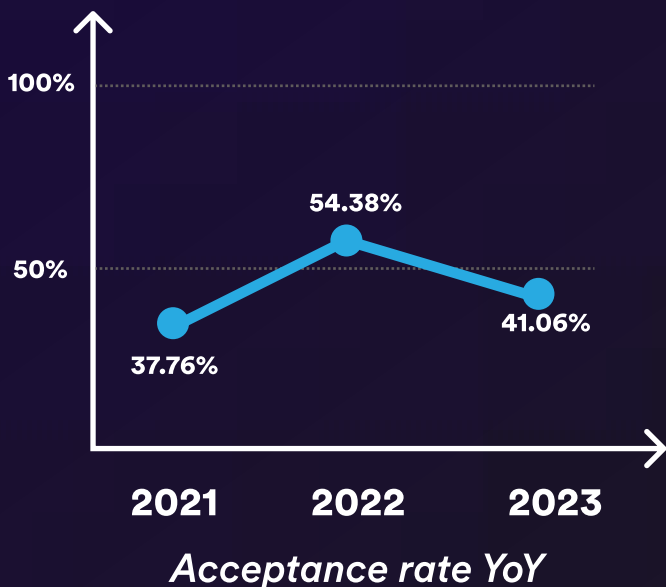
**41**

different countries

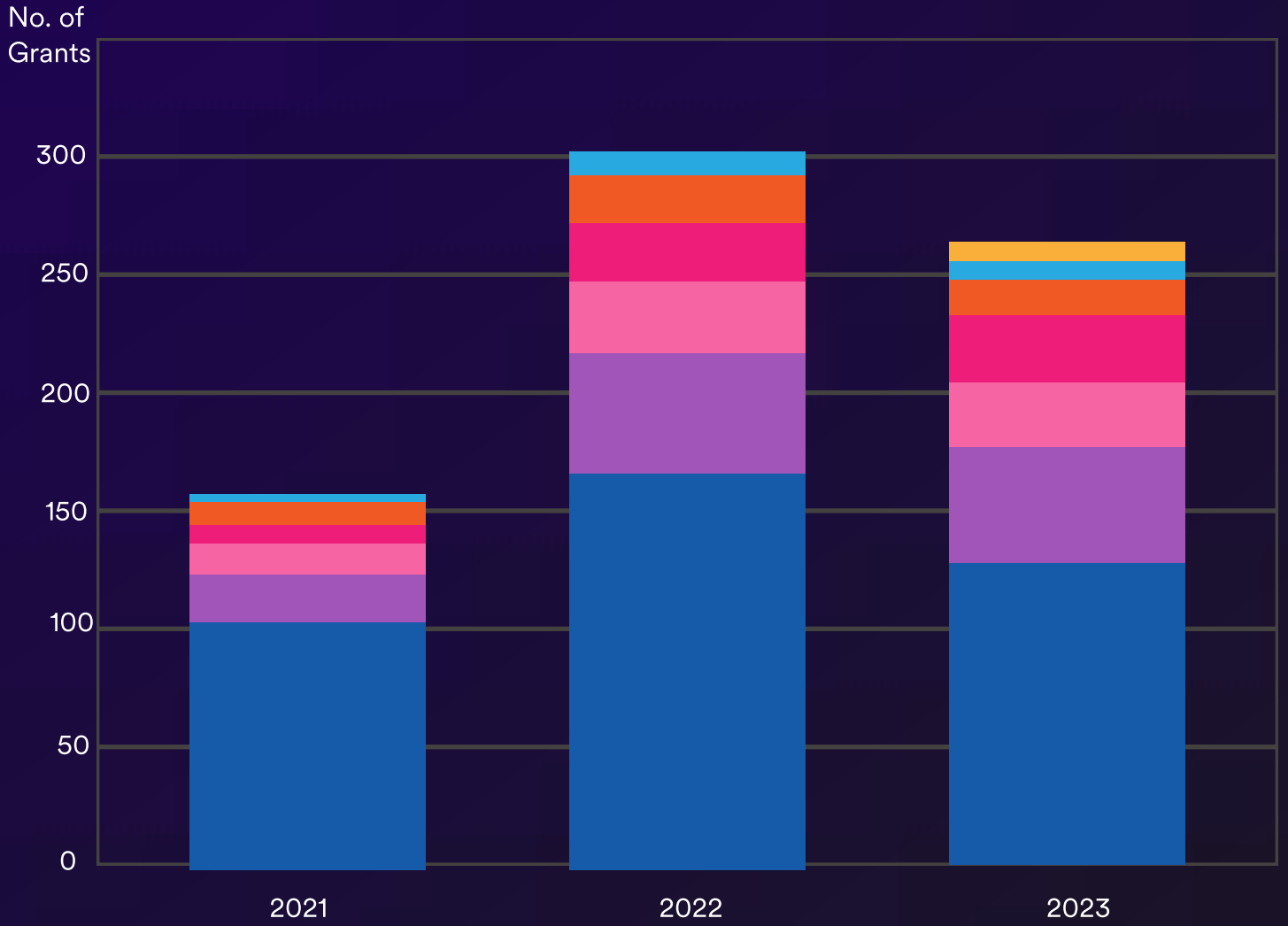


**USD 6.25M**

Grants disbursed in 2023



# Developer Grant Types



Apps & Open Internet Services

Infrastructure

Developer Tooling

Other

Integrations & APIs

Canister Development Kits (CDKs) & Agents

Decentralized AI (DeAI)



# ICP Hubs in Numbers <sup>®</sup>

# 422

Local Crypto Communities

FROM

# 25

different countries

# 70

Hackathons

# 189

Chapters in Universities

# 28

Ideathons

# 5

Incubation Programs

# 22

partnerships

# 300+

events worldwide

# 20k

people in global community





# MULTI- CHAIN DEFI

# Multichain DeFi

## A tale of 4 DEXes

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Leveraging the ICP protocol, decentralized exchanges form a cornerstone of decentralized finance (DeFi) and are one of the most actively used dApps. Through ICP's capabilities of chain-key technology and threshold cryptography, DEXes on ICP offer a wide range of DeFi services, such as cross-chain swaps, without relying on third-party custodians or requiring BTC or ETH to be bridged. Not only does this eliminate the risks of bridging BTC or ETH, which often involves a custodian, but it also allows direct interaction with the Bitcoin and Ethereum main nets without any intermediary.

Sonic, a leading DEX on ICP, facilitates cross-chain swaps between two leading blockchains, Bitcoin and Ethereum, in a non-custodial and bridgeless fashion.

***"With the integration of chain key technology and threshold ECDSA available on the Internet Computer Protocol (ICP), we now have the capability to interact with blockchains that utilize ECDSA. This enables the secure transfer and swapping of BTC and ETH tokens between users and contracts, eliminating the need for third-party server infrastructure".*** -states the founder of Sonic.

Any DEX on ICP benefits from leveraging its tech stack and features such as the reverse gas model. In the ICP ecosystem, users do not pay for the fees to interact with any dApp. The cost of the transaction is covered by the smart contract. So, a user can engage with DeFi on DEX without paying the exorbitant gas fees.

The founder of ICPSwap reveals - ***"Due to the implementation of the reverse gas model in the ICP network, users engaging with DEXes in the IC ecosystem are not required to pay gas fees. Moreover, for users needing to transfer tokens, the cost is restricted to the specific token being transferred. This approach eliminates the need to purchase a universal gas token, such as ETH, which is a requirement on the Ethereum network. This significantly lowers the entry barriers for users wishing to explore the ICP network".***



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The concept of reverse gas fees, particularly in DeFi, is valuable for various reasons. It opens up avenues for staking pools and yield farming without any gas costs associated with these transactions. Secondly, it also opens up the potential for smaller transactions as users do not have to bear the burden of high costs.

***“ICPSwap absorbs gas fees, allowing users to engage in transactions on the platform without incurring gas fees themselves. Users are only required to pay a nominal 0.3% transaction fee per trade, opening up a wide array of token trading opportunities within the IC ecosystem. Moreover, engaging in staking pools, farms, and other features on ICPSwap is completely free of charge. In contrast, on public blockchain networks, any on-chain activity typically involves gas fees.”***

DEXes on ICP allow users access to a variety of products. [ICLightHouse](#), a DeFi platform on ICP, facilitates users to access services such as swaps, decentralized exchange, wallet, and

and explorer. It also introduces innovative features such as Orderbook Automated Market Maker (OAMM) for optimizing the experience of engaging with DEXes.

On [Helix Markets](#) different perks, from swapping to staking, are generated in a safe and secure environment. Moreover, users get access to a user-friendly interface combined with better liquidity. Helix Markets, a recently launched DEX on ICP, states:

***“Better liquidity, native cross-chain transactions, and synthetic order books for peak liquidity efficiency in the crypto sphere, alongside an effortless and intuitive UX/UI. This enables smooth interactions with dApps and smart contracts on diverse chains.”***

All of these applications contribute to unfolding the ultimate experience of DEX - backed by low fees, a user-friendly interface, and a secure architecture.



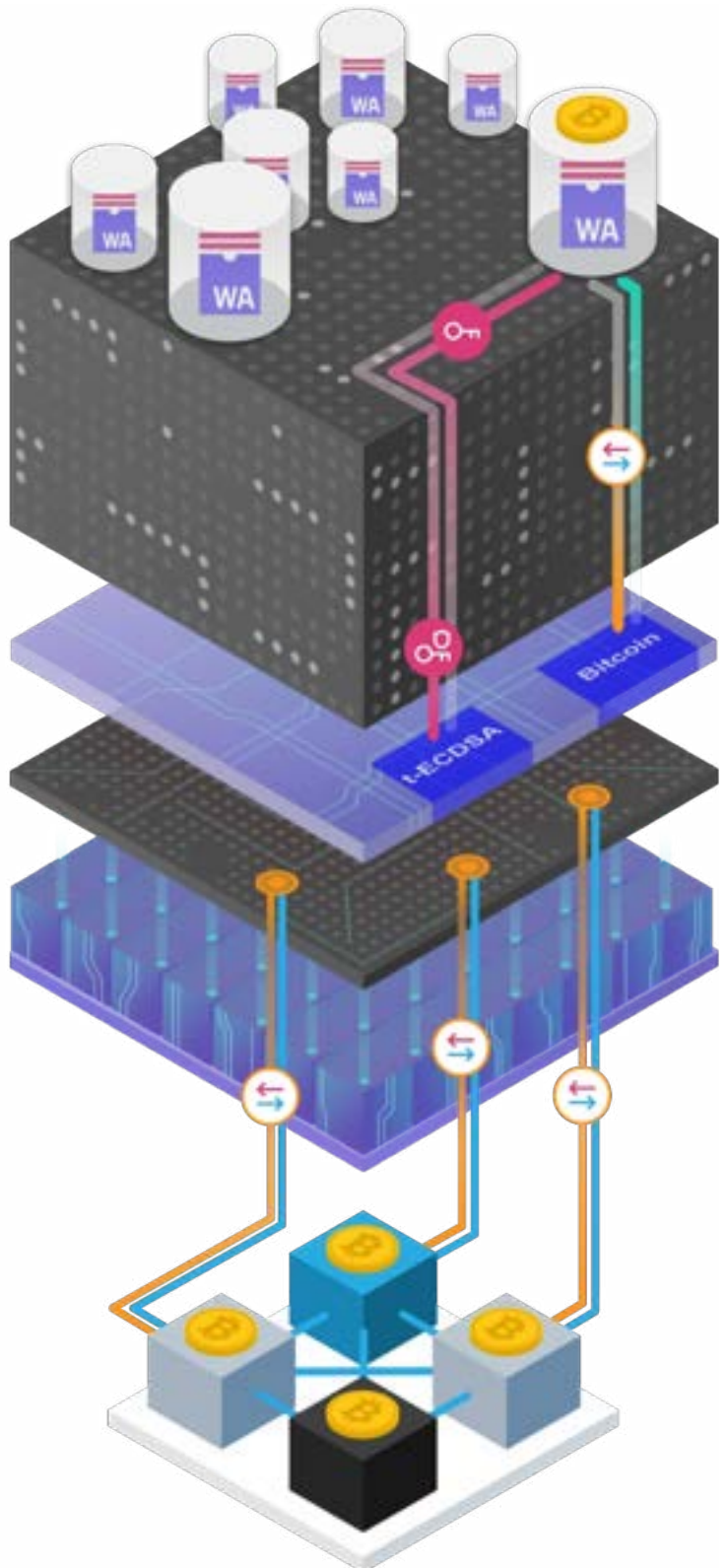
# BITCOIN ON ICP

# Bitcoin on ICP

The Internet Computer is integrated with the Bitcoin network at the protocol level. The canister smart contracts it hosts can create Bitcoin addresses as well as send and receive bitcoin directly on the Bitcoin network. This means bitcoin can be easily and securely incorporated into DeFi and Web3 services on the Internet Computer blockchain, without having to trust wrapped bitcoin from centralized bridging services, which are at high risk of being taken down or hacked. Between 2021 and 2022, more than 2 billion dollars was stolen by exploiting unsecure blockchain bridges.

The [ICP x BTC integration](#) comprises two key building blocks (and APIs):  
Network integration & chain-key ECDSA

Combining these building blocks, canisters can directly and securely hold, receive, and send bitcoin seamlessly as if the Internet Computer and the Bitcoin network were one blockchain. Another way of looking at it, is that the Bitcoin integration is the same as running a Bitcoin node on chain.



## Network Integration

One key tech development allowing smart contracts on the Internet Computer to obtain the balances of Bitcoin addresses as well as directly send and receive bitcoin is inter-chain communication. As the ICP blockchain creates transactions for the Bitcoin blockchain, its nodes directly transmit the transaction to the nodes of the Bitcoin network, without any need for intermediaries that might censor them. ICP nodes also directly pull blocks from the Bitcoin network to maintain Bitcoin's current UTXO set, allowing canisters to query the balance of Bitcoin addresses and their UTXOs. Creating bitcoin transactions and querying UTXO sets are made available to canisters by the Bitcoin API.

## Chain key ECDSA

The real innovation behind Bitcoin integration is chain-key ECDSA signing – advanced threshold cryptography integrated with ICP. In short, chain-key ECDSA is a set of cryptographic protocols that allow Internet Computer nodes to cooperatively create ECDSA signatures, which can be used to sign bitcoin transactions, using a highly fault-tolerant, decentralized network that is resilient to attacks by malicious nodes. The secret key is never stored in one place, instead it is broken down into key shares held by ICP nodes that are re-shared periodically. When requested,

nodes use their key shares to collectively sign BTC transactions without recreating the original secret key. This signing protocol assumes a threshold of nodes to be honest.

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## Bioniq, ICP, and the Great Bitcoin Renaissance



*By Bob Bodily,  
CEO Bioniq*

If you haven't been following along, Bitcoin has had a massive cultural revolution over the last 15 months. Bitcoin NFTs are flourishing on a protocol called Ordinals, DeFi and memecoins are taking off on protocols like BRC-20, TAP, Atomicals, and Runes, and Bitcoin is for builders again with the rise of meta-protocols.

The Internet Computer Protocol was ready for the rise of Bitcoin, with four key Bitcoin integration primitives to help builders capitalize on the recent rise of Bitcoin: tECDSA to sign Bitcoin transactions directly from an ICP smart contract, a Bitcoin light node on chain to easily read Bitcoin UTXOs and balances, ckBTC to bridge Bitcoin to and from ICP, and ckOrdinals to bridge Ordinals to and from ICP.

When you couple the increased interest in Bitcoin with the fantastic Bitcoin integration primitives on ICP, you get Bioniq, an Ordinals marketplace and launchpad built on ICP.

Bioniq enjoys all of the benefits of being built on a Bitcoin sidechain (ICP): fast transactions, no gas or network fees, easy onboarding (reverse gas model), and better features enabled by increased programmability.

## Bitcoin is for Builders Again

Between Ordinals (Bitcoin NFTs), BRC-20 (top fungible token standard on Bitcoin), and a few other meta-protocols on Bitcoin, there has been over \$2B in volume over the last 12 months. This is almost all you need to know.

With increased volume comes more builders, more entrepreneurs, more VCs, more angel investors, more collectors, more startup accelerators, more media coverage, more PR interest, more collectors, and more degens. Bitcoin really is for builders again.

Many people are calling 2017 - 2022 "The Great Stagnation" on Bitcoin. While Bitcoin got the Segwit upgrade in 2017 and the Taproot upgrade in 2021, the culture around Bitcoin significantly deteriorated during this time. Innovation was shunned and Bitcoin maxis ruled the Bitcoin discourse from their high and mighty podcasts.

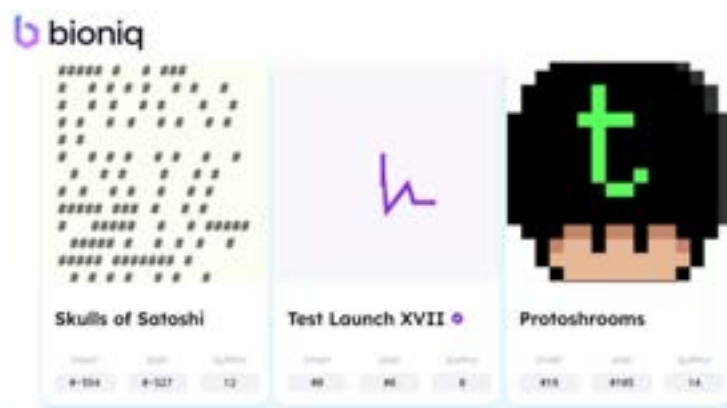
In 2023, Casey Rodarmor released the Ordinals protocol, a new Bitcoin NFT standard, and it immediately caught on like wildfire. Maybe it was the bleeding ETH NFT ecosystem for the

preceding 12 months and people just needed a new shiny object to chase. Or maybe it was the fact that Casey released an explorer, wallet, minting tool, indexer, and API all in one. Or maybe it was that people had been waiting for years to build on Bitcoin, and now they finally could. Whatever the reason, Ordinals took off and haven't looked back since.

## The Internet Computer Protocol is the Best Place to Build Bitcoin Apps

ICP is uniquely suited for building Bitcoin apps. In fact, I tell people that it is easier (and faster) to build a Bitcoin app on ICP than anywhere else in the world.

The first major innovation is the threshold ECDSA (tECDSA) implementation on ICP. This means ICP smart contracts can have a Bitcoin address, hold Bitcoin directly, and sign and broadcast Bitcoin transactions to the mempool. This protocol primitive enables all kinds of interesting applications on top.





The next innovation is there is a Bitcoin light node running on chain on ICP. This means you can call a canister directly to get a the balance or UTXOs of a Bitcoin address. Having a Bitcoin light node running on chain is a more secure way to get data from Bitcoin without having to run your own Bitcoin node.

Then we have ckBTC and ckOrdinals. ckBTC and ckOrdinals allow you to bridge your Bitcoin and Ordinals to and from ICP. This bridging is unique because it is managed at the protocol layer. Each node in the tECDSA subnet has a private key share which is rotated every 10 hours automatically by the protocol. The private key share is encrypted on the node and can be used in conjunction with other private key shares to sign Bitcoin transactions as requested by ICP smart contracts.

## **Bioniq, the Closest Thing We Have to an Ordinals L2**

Bioniq is perfectly positioned to take advantage of the increased attention in the Bitcoin space by leveraging the Bitcoin innovations on ICP. We've been building on ICP since May of 2021, and we've built a wallet, smart contract wallet, NFT standard, NFT marketplace, NFT collateralized interest protocol, and an NFT self-minting tool. Combine our experience with building NFT tech on ICP with the

Bioniq is unique in the Bitcoin ordinals Bitcoin protocol primitives on ICP and the renaissance happening on Bitcoin, and you have what is looking to be a perfect storm.

marketplace space because we are built on ICP. This means we enjoy all of the benefits of building on a more programmable layer:

1. Fast transactions
2. No gas fees or network fees for users
3. Reserved ordinals (off-Bitcoin ICP tokens with the exclusive right to inscribe to Bitcoin)
4. Hybrid storage (high resolution assets on ICP with optimized assets on Bitcoin)
5. Dynamic NFTs (ordinals that change over time, stake, burn, level up, upgrade, etc)
6. Better user experience (easy login, reverse gas model, fast, low fees)

Over the next year we will only see more interest in Bitcoin assets, Bitcoin protocols, and Bitcoin layers, and Bioniq and ICP have a massive opportunity to be leaders pushing Bitcoin forward.



04

**SNS  
SWAPS**

# SNS SWAPS

## Service Nervous System (SNS)

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The Service Nervous System (SNS) framework is the Internet Computer's built-in solution for creating and maintaining decentralized autonomous organizations (DAOs) to govern dapps.

An SNS consists of an open, permissionless governance system governing a dapp, and of a built-in governance token that is unique to each SNS.

### SNS DAO

Generally, for each dapp that is under SNS DAO control, there is one SNS DAO.

The SNS DAO works very similarly to the NNS DAO that governs the full ICP, where DAO participants are called neurons and all neurons can suggest and vote on suggestions how to evolve the dapp that are called proposals.

Each SNS community can choose its own unique tokenomics and governance rules by parameters that can be set for each SNS DAO.

#### What an SNS governs

On a high level an SNS DAO governs a dapp, that is decides on the code of that dapp and how it is evolved. On the Internet Computer this can also include the dapp's data and frontend.

Moreover, the SNS DAO makes decision

on the DAO itself, for example on how to change tokenomics.

More technically, there are native proposals that are common to all SNSs, such as proposals to upgrade the DAO-controlled dapp canisters, change governance rules, or making transfers from the treasury to open a liquidity pool on a DEX.

In addition, each SNS can define custom proposals that are specific to the dapp's needs. A proposal can be defined to call any method on any canister. This allows, for example to define proposals that orchestrate upgrades of dapps with many canisters.

#### Liquid democracy

The SNS implements a form of liquid democracy, which means that neurons can either vote directly on proposals, or



delegate their voting power to other neurons, called following. In the SNS, following is done on the basis of proposal types. This facilitates following different experts on different proposals kinds. The voting delegations can be changed at any point in time.

### **Voting rules**

Voting on SNS proposals follows an algorithm called wait-for-quiet.

The main idea of wait-for-quiet is that proposals where all voters agree can be executed quickly, while strongly contested proposals have a longer voting period. This allows voters to have enough time to react if a proposal result is turned all of a sudden.

Each SNS can decide on the initial and maximal voting period of proposals.

For proposal adoption, SNSs distinguish between normal and critical proposals, which include for example treasury transfer proposals.

Most proposals are adopted if:

1. the voting period has elapsed, there are more votes in favor than against the proposal (simple majority), and at least 3% of the totally available voting power voted in favor of the proposal (enough participation).
2. more than 50% of the total voting power are in favor of the proposal. At this point, the proposal's result cannot be changed anymore even if all remaining voters vote against the proposal and therefore the proposal is executed without awaiting the end of the voting period.

For critical proposals, these rules are more strict and passing a proposal requires two thirds of the votes to be in favor of it and at least 20% of the totally available voting power in favor of the proposal (enough participation).

### **Proposal execution**

As soon as a proposal is adopted, it is executed by the SNS.

With very few exceptions, proposals are executed automatically and fully on-chain and thus do not require trusting any third party.



## Openchat

OpenChat is a fully featured chat application running on the Internet Computer blockchain similar to WhatsApp, Signal and Telegram.

The app is open source and runs as a collection of canister smart-contracts.

Openchat users can send messages to each other containing tokens such as ICP and ckBTC as well swap inside the app. They can also create groups and communities and, each being implemented inside a canister smart-contract. This architecture allows Openchat to scale to every person on the planet.

**\$ICP committed: 1'000'000.00**



## Kinic

Kinic is the first and only search engine for web3 content that runs on blockchain.

Kinic is the answer to Google and other search engines that are operated by a centralized entity, undermine data privacy, favor established players, and ignore the emerging world of web3 content.

Currently, Kinic allows you to search

all frontend canisters on the Internet Computer blockchain. Kinic's roadmap includes adding content hosted on other blockchains and decentralized storage networks. Kinic's SEO module will involve unprecedented transparency backed by zero-knowledge machine learning (ZKML) technology. All users will be able to trust that they are getting the best results as determined by Kinic's algorithms, and are not being served ad based content other than which is clearly transparent.

**\$ICP committed: 509'923.52**



## Hot or Not

Hot or Not is Web3's answer to TikTok. It is a short-video social media platform that integrates gamification for short video content.

It tackles the intrinsic issues that have created an unequal and biased ecosystem in traditional social media.

Hot or Not combines the best of social media, gamification, and decentralization to revolutionize the short-video social media ecosystem. This presents a multi-billion dollar market opportunity that has remained untapped by the existing social media ecosystem.

The team's vision is to promote a more equitable and democratic social media ecosystem that prioritizes freedom of expression and resists censorship from Big Tech. They strive to empower

individuals and communities to participate in shaping the online landscape, while fostering a culture of respect, inclusivity, and accountability.

**\$ICP committed: 1'074'027.890**



## Ghost

IC Ghost is the first meme coin on ICP that is embracing the spirit of collective decision-making and relinquishes control to the community.

**\$ICP committed: 20'000.00**



## Modclub

Modclub is a decentralized “verification as a service” platform offering fast, accurate, and scalable AI-powered moderation, verification and data labelling solutions. Developers can focus on core product development by offloading resource-heavy tasks like moderation and user verification. While Modclub’s content moderation product ensures the safety of dApps’ communities, the Proof of Humanity solution prevents bot attacks and spam accounts. The platform ensures security, privacy, efficiency, and cost-effectiveness for developers. Moderators are rewarded with MOD tokens for their contributions.

**\$ICP committed: 654'634.48**



## BOOM DAO

BOOM DAO is a fully on-chain DAO that is revolutionizing the gaming industry by building the gaming vertical on the ICP. As a fully on-chain web3 gaming platform, BOOM enables game developers to launch their on-chain games quickly and easily, consolidate network effects, seek technical support and funding, leverage gaming guilds to acquire users and build communities, and more. BOOM DAO is the next paradigm for on-chain gaming, offering unprecedented levels of transparency, ownership, and decentralization for players and developers alike. Community-owned and governed by a collective of innovative builders, gamers, guilds, creators, investors, and partners, BOOM is a collaborative force disrupting the world of gaming. Most importantly, BOOM DAO is “the DAO for all ICP games”.

**\$ICP committed: 408'984.95**



## Catalyze

Catalyze is an innovative social application designed to run on the Internet Computer. The app serves as a community organizing tool and a social application on Web3 where you can build groups, interact with other members of your community, create/run events, and transact using your Web3 identity and wallet.

Catalyze currently has a suite of organizational tools, including calendar and events planning, tasks, chat, and community groups integrated into the application. As an end-user, you can log into the app using your Web3 internet identity or Web2 credentials.

**\$ICP committed: 602'005.55**



**ICX**

ICX is a cutting-edge web3 social network designed to embody the true principles of a decentralized internet. Built atop the revolutionary framework of the Internet Computer, it mirrors the functionalities you love on platforms like Twitter, but with enhanced privacy, ownership, and community-driven governance.

**\$ICP committed: 150'000.00**



**Nuance**

Nuance is an Internet Computer-based publishing platform. Think Medium for the Web 3 era. Nuance is ad-free (unless the community wants ads). Writers are able to receive tips from readers for free content, offer paid subscriptions to their work, or paywall work using transferable NFTs. Writers want this. Readers want this. Nuance delivers it.

**\$ICP committed: 262'407.76**



Sonic aims to be the DeFi hub on the Internet Computer, leveraging the IC's unlimited scalability and web-scale user experience to build the future of finance. Sonic offers an AMM without gas fees due to the reverse gas model of the IC. Sonic is composed of a collection of DeFi protocols, enabling users to issue their own tokens, trade their tokens and earn rewards by providing liquidity.

**\$ICP committed: 519'375.43**



**Gold DAO**

The Gold DAO project represents a groundbreaking fusion of traditional gold and modern blockchain technology, allowing anyone in the world to access physical gold instantaneously, with no dependence upon the banking system. At its core, the project introduces two primary products: the Gold Token (GLDT) - a fungible token allowing fractional gold ownership; and a USD-pegged stablecoin (USDG) - backed by gold (GLDT). These components combine to unlock a reliable alternative to fiat-backed stablecoins and their inflationary underpinnings, eradicating the limitations of traditional gold transacting by enabling instant transferability and liquidity, leveraging

blockchain's transparency and efficiency.

**\$ICP committed: 783'717.91**



**TRAX**

TRAX is providing artists of all sizes with bespoke digital tools to help them earn more revenue. As a content aggregator, TRAX enables artists to list and sell a wide range of exclusive and pre-release content (tracks, albums, music videos, live streams, merch, etc.) - available to fans in exchange for direct payments. TRAX aims to provide up-and-coming and veteran artists alike with better options for connecting with their superfans.

**\$ICP committed: 314'733.82**



**Neutrinite**

Neutrinite is the SNS DAO for ICPcoins which is the premier portal for intricate insights into the dynamic world of Internet Computer cryptocurrencies. The platform is dedicated to demystifying the complexities of the IC ecosystem, providing users with real-time data, comprehensive charts, and critical statistics with a focus on digital assets that thrive on the Internet Computer blockchain. The Internet Computer DeFi landscape is a tapestry woven by a myriad of entities, each contributing unique threads to the fabric. From wallet creators and decentralized exchange (DEX)

architects to ledger specialists and the developers of versatile canisters and software, the ICP ecosystem is a hotbed of innovation. In this constantly evolving environment, adaptability is key, and ICPCoins stands as a beacon of clarity amidst the rapid flux.

**\$ICP committed: 224'525.12**



**Sneed**

A 'blank canvas' DAO designed to enable the community to innovate, Sneed offers an accessible, open platform for creative and technological exploration on the Internet Computer Protocol.

**\$ICP committed: 30'000.00**



**Dragginz**



*This section is prepared by "Blockchain pill"*

Blockchain technology continues to reshape the landscape of gaming, and one project that stands out in the crypto gaming sphere is Dragginz. Developed on the Internet Computer Protocol (ICP), Dragginz is making waves for its innovative approach to building a complete game directly on the blockchain.

The excitement around Dragginz stems from its roots in success. The creators of this blockchain game, Adam Powell and Donna Powell, previously achieved immense success with Neopets, a game launched in 1999.





Dragginz

Neopets, which they later sold to Viacom for \$160 million, still boasts millions of active players today, 24 years after its inception.

### **The Blockchain Quest**

In 2014, Adam and Donna Powell embarked on a quest to explore the potential of blockchain technology in gaming. While initially considering Ethereum, they encountered scalability and programming language limitations that hindered the realization of their vision.

The breakthrough came in 2017 when they crossed paths with Dominic Williams, who introduced them to the Internet Computer Protocol (ICP).

The decision to build Dragginz on ICP offered unparalleled advantages, including enhanced scalability, a reverse gas model and an automated DAO governance system.

### **The Power of Internet Computer Protocol**

Internet Computer Protocol provides a

unique environment for fully on-chain games, solving scalability issues and ensuring complete control over the game's infrastructure.

This eliminates the risk of hosting providers or investors pressuring developers to shut down profitable games.

Dragginz aims to be a self-sufficient game, allowing the community and token holders to govern and sustain it.

### **The Reverse Gas Fee Model**

The Internet Computer Protocol introduces a reverse gas fee model.

Unlike traditional blockchain games that often require the user to pay gas fees in the network's native currency, ICP's reverse gas fee model allows for a fee-less and gas-less gaming experience.

This aligns with the vision of creating a user-friendly, on-chain gaming ecosystem.

### **Embarking on the Dragginz Adventure**

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As we delve into the heart of Dragginz, the game promises an unparalleled gaming experience.

Set in a world within the broken husk of a frozen planet, Dragginz is far from the sunny meadow suggested by its temporary placeholder visuals.

The game boasts a complex personality system that dictates the behavior of characters, including Players' characters, Dragginz, NPCs, and enemies.

The gameplay revolves around various trade skills, with cooking being one of the initial skills players encounter. From acquiring rare recipes through interactions with NPCs to experimenting with ingredients at Cooking Stations, players navigate a dynamic and immersive world.

Scattered throughout the game are Skill Stations, allowing players to engage in different trade skills at various difficulty levels.



### **Magic, Flow, and the Spell Book**

Magic in Dragginz is intricately tied to the use of Flow. Unlike traditional spell



books accessible at any time, Dragginz adopts a Dungeons and Dragons-inspired approach where players must memorize spells to take with them.

The Spell Book, a central element of the game, can only be accessed when in the player's Cave, adding an additional layer of strategy and decision-making.

### **A Glimpse into Tokenomics**

Dragginz took over what initially was the first SNS token (SNS1) launched on the Internet Computer, by acquiring a majority stake into the project.

Despite not being listed on major platforms like CoinMarketCap or CoinGecko, Dragginz has already seen significant price action, reaching impressive heights.

According to ICP Coins (an ICP token tracker), there are just 4712 SNS1 tokens in circulation out of the 10,000 total. The remainder are locked away and participating in the Dragginz DAO governance.

At the time of writing, you could pick up an SNS1 token for around \$1750, and the project's market cap sits at over \$8 million. (not bad).



### **Embracing the Future of Gaming**

Dragginz embodies the future of gaming, where blockchain technology enables games to be truly decentralized, self-sufficient, and community-driven.

This eliminates the risk of hosting providers or investors pressuring developers to shut down profitable games.

Dragginz aims to be a self-sufficient game, allowing the community and token holders to govern and sustain it.

As we eagerly anticipate the official release of Dragginz, it stands as a testament to the transformative power of blockchain technology in redefining how we experience and interact with games.

The collaboration between the creators of Neopets and the capabilities of Internet Computer Protocol sets the stage for a groundbreaking gaming experience that transcends traditional boundaries.

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**GRANTS**

# PRIORITIES & PROCESS

The [Developer Grants Program](#) aims to catalyze the growth of the Internet Computer ecosystem and make the Internet Computer accessible and approachable to more developers around the world by providing support to promising developers and teams.

Among other forms, these can be grants that fall into the below grant categories:

## APPLICATION LAYER

e.g. IDEs, debuggers, logging libraries

## INFRASTRUCTURE

e.g. oracles, asset bridges

## INTEGRATIONS & APIS

e.g. chat, email, maps

## DAPPS & OPEN INTERNET SERVICES

see e.g. [Requests for Startups](#)

## CANISTER DEVELOPMENT KITS (CDKS) & AGENTS

### see e.g. [DEAI GRANT](#) [DUBS](#)

Discover the power of AI on the Internet Computer. The Internet Computer blockchain is the only blockchain that can run true DeAI.

### [OPEN RFPS & BOUNTIES](#)

- [\(All along\) the IC Watchtower](#)
- [Automated Code-Level Verifier for Motoko](#)
  - [HTTPS Outcalls](#)
  - [Chain-Key Signatures](#)
  - [Bitcoin Integration](#)

# OUR GRANT EVALUATION PROCESS

## STEP 1

### SUBMIT AN APPLICATION

This article is to help the applicant through the Grant application submission process.

## STEP 2

### PRE-SCREENING & EVALUATION

This step is to ensure the application is clear and complete.

## STEP 3

### INTERVIEW & FINAL DECISION

A short 30-minute screening interview with the DFINITY team.

## STEP 4

### MILESTONE SETTING & DILIGENCE

Work collaboratively with the DFINITY team to set your milestones.

## STEP 5

### PROJECT KICK OFF

Get ready to start your project!

Find more information on the grant process in our FAQs.

# Multichain & DeFi



## IC Lighthouse



ICLighthouse is creating a new DeFi solution that supports multi-chain assets and uses threshold signature technology to enable a cross-chain network of assets and implement a fully on-chain orderbook DEX. Based in Singapore, the ICLighthouse team consists of IC ecosystem developers, Ethereum ecosystem experts, and finance industry professionals.

### **ICDex (core product)**

ICDex implements funding, matching, settlement, recording and UI all on chain, completely free from dependence on third parties.



It also implements an order book matching engine that makes ICDex the only full chain DEX on the market that does not rely on a centralized server.

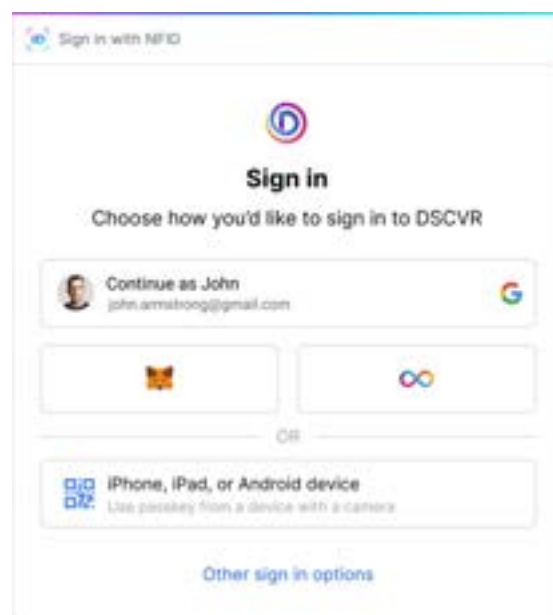
### **icRouter**

icRouter is a cutting edge, bridgeless cross chain network, leveraging threshold signature technology to connect Bitcoin, IC, and EVM networks such as Ethereum, enhancing security and interoperability in the blockchain space.



## NFID

NFID Wallet is a self-custodial identity provider and key management protocol that makes it easy for anyone to make and use ICP accounts.



NFID is a privacy-preserving, one-touch multi-factor wallet protocol developed by Internet Identity Labs.

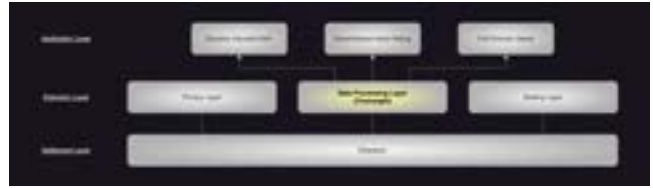
Your privacy is at the center of NFID’s design philosophy. Sign in to websites and apps with your username, profile photo, and digital asset information when you want to make purchases and share your public activity, or hide it when you want to stay private.

NFID isn't just an identity; it's a powerful tool for managing digital assets. Equipped with an integrated crypto wallet, NFID empowers you to seamlessly manage BTC, ETH, MATIC, ICP, collectibles, and more under the protection of the most advanced smart contract platform to date.



## Chainsight

Chainsight provides a data processing layer to develop applications that go one step ahead. It is an extension layer that leverages historical data, constantly updated data, and cross-chain data to compute the information you need for your application. A user can use a privacy layer for sensitive transactions, a scaling layer for high-volume transactions, and a data processing layer for computation with large amounts of data. With Chainsight, on-chain applications will be able to address more use cases that were previously difficult to achieve.



## Orally

Orally is a decentralized data oracle provider. The goal of Orally’s suite of products is to make digital asset data and real world data accessible on-chain.

Built from the first principles of decentralization, Orally is designed to be fully programmable, completely interoperable with other decentralized protocols and data sources, permissionless (enabling global access), and immutable (with an emphasis on overall data security and integrity).





What this means in practical sense is that Orally can be used to leverage a wide range of data feeds – from the standard price feed oracle to pulling in real world data like sports scores (for dynamic NFTs) or weather reports (for insurance claims) to things like social sentiment (for prediction markets).

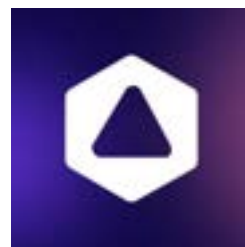
Orally's biggest distinction is the baked-in focus on security and reliability, which lets our partners focus on delivering value to their protocol or app users without worrying about data integrity or usability issues.



## B3Pay



B3Wallet is a decentralized multi-chain and multi-owner wallet. It is designed to support multiple blockchains, including Bitcoin, Ethereum, and Internet Computer. It also supports multiple owners, including single owner, multi-owner, and multi-signature. In addition, it supports multiple accounts. Being decentralized, it does not rely on any centralized service and users can use it without any registration and recover it without any backup.



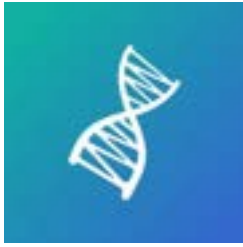
## Bitfinity

Bitfinity is a blazingly-fast (1000 TPS+), next-generation EVM, serving as a Layer Two for Bitcoin and other Bitcoin on-chain assets. With Bitfinity, you will be able to deploy smart-contracts for Bitcoin, Ordinals, BRC-20 - all written in Solidity.

Layer 2 solutions are ubiquitous in the Ethereum world, and primarily rely on zero-knowledge cryptography or optimistic rollups to create secure bridges between the base layer-1 chain and the layer-2.



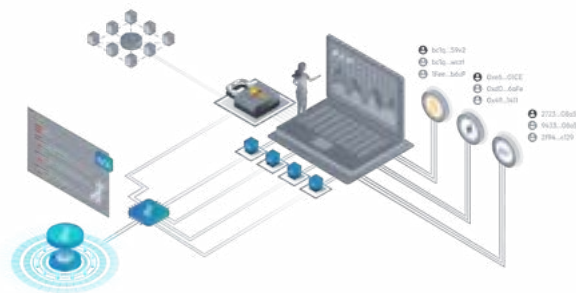
Bitfinity instead uses a threshold cryptographic scheme, called Chain-Key, to create a secure decentralised bridge between Bitfinity and the Bitcoin blockchain. Chain-key is unique, in that no single node ever has access to the threshold key, the threshold key shares are regenerated on a periodic basis every 11 minutes through "moon-math".



## Helix



Helix Markets stands out as a groundbreaking hybrid spot orderbook decentralized exchange (DEX) meticulously crafted on the Internet Computer (IC) protocol. Its primary mission is to enhance trading liquidity and bring ease of use, solidifying the IC's position as a leading DeFi blockchain. The inaugural release demonstrated the platform's cross-chain prowess by enabling instantaneous swaps of ICP, ckBTC, or ckETH for USDC or USDT (ERC-20) stablecoins, all achieved seamlessly without the need for bridges. Excitingly, the upcoming release is set to introduce SNS project tokens, maintaining the same high level of liquidity and usability.



Distinguishing itself in the competitive landscape, Helix Markets operates under European regulations, offering users the invaluable advantages of regulatory compliance and enhanced security measures. Equipped with a built-in support center and a user-

friendly mobile version, Helix Markets caters to individuals seeking the security of DeFi without the overwhelming learning curve.

## Omnity

Omnity is a cross-chain protocol built by Octopus Network on ICP, specially designed to fit into the modular blockchain landscape. It is the first 100% decentralized protocol in the cross-chain domain that thrives to keep the best possible user experience. Omnity addresses challenges like security vulnerability, high cost and latency, and liquidity fragmentation by leveraging ICP's unique capabilities, including Chain Key and HTTPS Outcalls, among others. The brand new protocol provides a more cost and time efficient, secure, and ubiquitous cross-chain service compared to all existing ones.



## Rakeoff

Rakeoff is a cryptocurrency staking and rewards application built on the ICP blockchain. It offers an ICP wallet with simplified staking, real-time asset tracking, and a no-loss prize pool for staking rewards. Enhance your staking experience with achievement-based ICP bonuses, all within a compact, user-friendly application.

## Rakeoff's solutions:

1/A simplified and streamlined way to stake your ICP tokens and earn ICP staking (governance) rewards. Rakeoff abstracts away all the extra nitty gritty stuff, for a seamless staking experience

2/ICP's first no-loss prize pool. You may earn just 1 ICP a month or 1 ICP every few months from your stake, so the prize pool in Rakeoff is this new idea of pooling your low amount of newly created tokens with other users so you can try win big! 1 entry into the prize pool costs 1 ICP (so you need at least 1 ICP in staking rewards to participate) and it works like a raffle - so randomly, after some time has passed, 1 user who entered wins the whole pool.



## Loka mining



Loka is a platform that enables retail investors to acquire BTC at a lower than market price by providing liquidity to Bitcoin miners without any exposure to centralized party risk using our trustless non-custodial escrow and fully decentralized mining pool.



## Lucrisma

Lucrisma is a cutting-edge data tokenization platform that simplifies users' financial life by enabling them to consolidate their traditional and digital assets, identity, and credit scores into a secure token, which can then be used to streamline mortgage applications and revolutionize access to other financial services.

Loka platform is a two-sided marketplace powered by a P2P trustless protocol, connects Bitcoin miners and individual investors in a non-custodial approach, where:

Individual investors can invest in Bitcoin miners with access to cheap energy by purchasing contracts of future hash rate for a certain period of time, in return for Bitcoin at a lower price than buying from the market.

Bitcoin miners gain early return of their investment with a margin to scale up their hash rate capacity by purchasing more hardware, hedging the risk of price volatility, while still getting the upside of fees in BTC for their operation.

## Why Is ICPSwap Unique

ICPSwap is a hub that provides full-stack financial, market, and DAO services. Based on the underlying technology of DFINITY's Internet Computer, ICPSwap establishes an ecosystem of genuinely decentralized finance by refactoring the way users and developers build projects jointly.

ICPSwap #ICP	Pancakeswap #BSC	Uniswap #ETH	ICPSwap	Pancakeswap	UNISWAP
Liquidity mining and staking with user customization	Liquidity Mining	Liquidity Mining	Liquidity mining and staking	Liquidity mining and staking	Limited liquidity mining
Limit-order Features	Limit-order Features	Limit-order Features	Yes	No	No
Mint Token	Mint Token	Mint Token	Yes	No	No
MOE (Market-making with dynamic leverage)	MOE (Market-making with dynamic leverage)	MOE (Market-making with dynamic leverage)	Yes (Market-making with Custom Leverage)	No	No
DAO Services	DAO Services	DAO Services	Yes	Yes, no support for custom market-making liquidity ranges	Yes, support for custom market-making liquidity ranges
Adx	Adx	Adx	Yes	Medium	Low
Chat	Chat	Chat	Yes	Low, high	High
			No centralized server required	Deployed to centralized servers	Deployed to centralized servers
			The Token can interact on-chain status and information and community users can interact with one another and get rewards	Information on a small number of transactions	Information on a small number of transactions
			Yes, subject for creating communities with a team/DAO operation	No	No
			Yes	No	No
			Yes, and with advanced features	No	No
			Yes, and with advanced features	No	No
			Yes	No	No
			Maximum supply of 1 billion ICP tokens	Limited supply of BNB tokens	Limited supply of UNI tokens, currently 1 billion in total
			Business Inventory	Liquidity mining and staking	Liquidity mining
			Multi-wallets (including Selfie Token, Pools, Sub, community rewards, governance, etc.)	Funding, governance, NFT, staking	Governance
			Smart form and reputation for team automatically and in a decentralized manner	Subnet	No support
			Support DAO and other ICO holder can initiate a governance vote	Team follows a proposal and then the community vote	Team follows a proposal and then the community vote



### ICPSwap



ICPSwap is a hub that provides full-stack financial, market, and DAO services. Based on the underlying technology of ICP, ICPSwap establishes an ecosystem of genuinely decentralized finance by refactoring the way users and developers build projects jointly.

ICPSwap provides each project with a complete solution concerning token minting, trading, distribution, allocation, project operation, and marketing. As per the spirit of ICP, ICPSwap provides a financial innovation services framework to solve the pain points and issues of developers and projects regarding operation and marketing.

### ChainkeyX



ChainkeyX is a fully decentralized and self custodial crypto neobank for Bitcoin and Ethereum assets. We provide three main functions that traditional banks provide but on the blockchain: Fixed deposit, Collateralized loans and Asset swap. These three products combined empower the protocol to provide sustainable native BTC or ETH yield to BTC & ETH depositors and allow liquidity providers to unlock additional BTC or ETH liquidity with their yield generating assets as collateral.

By providing these products on the blockchain, ChainkeyX offers users full self custody of their own assets, higher capital efficiency of assets with liquid staking mechanics and 100% transparent counterparty risk.



Swap, Deposit & Borrow native Bitcoin, Ethereum assets on ChainkeyX

## Elliptic DAO



The Elliptic protocol is an innovative decentralized and over-collateralized stablecoin platform that aims to provide a stable and capital-efficient alternative to highly volatile cryptocurrencies. The protocol allows users to exchange their volatile assets from multiple chains into stable assets, providing a stable value in US dollars represented as eUSD. As one of the founding pillars of Decentralized Finance (DeFi), stablecoins play a crucial role in the ecosystem. The Elliptic protocol aims to be at the forefront of innovation by leveraging the cutting-edge technology of the Internet Computer. With its innovative approach, the Elliptic protocol is poised to become the first decentralized multi-chain stablecoin in the blockchain space.

## Finterest

Finterest is the first native Bitcoin borrow/lending platform trustlessly operated on The Internet Computer. Users can borrow and lend native Bitcoin, ICP, and stablecoins with ease.

## AstroX

AstroX is a web3 identity service

leveraging cryptography to enable users to sign into websites and share personal information without giving up their privacy. After experimenting with multiple ecosystems, the team has chosen the Internet Computer to develop its latest product – an near-field communication (NFC) enabled smart contract wallet.

With this wallet, anyone can create a new wallet and claim NFTs without purchasing crypto to pay gas fees. This first-of-its-kind wallet greatly reduces the friction for new entrants by linking private keys to the phone's hardware. After tapping their phone against an NFC card, an account is automatically generated, including funds to pay for gas fees.

# UsherLabs



## Usher Labs

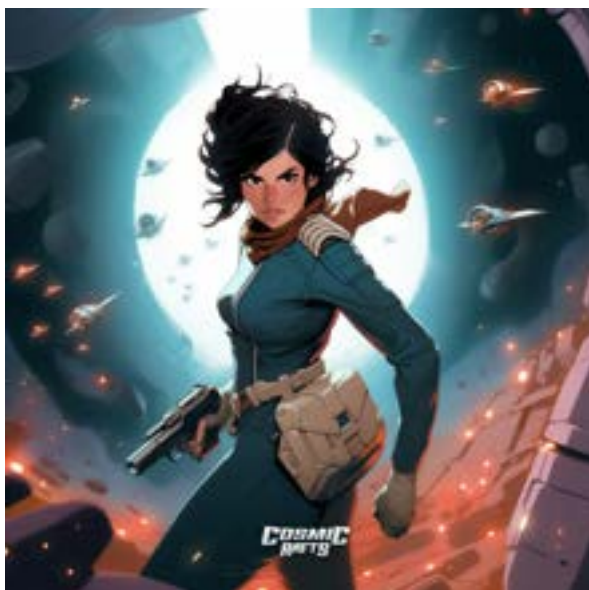
Usher Labs is developing a data integration layer to power the next data-driven DeFi products. The CCAMP (Cross Chain Asset Manager Protocol) has been released on the Internet Computer to enable liquidity aggregation and asset management.

# Gaming & Metaverse



## Cosmicrafts

Cosmicrafts is a real-time strategy game set in an intergalactic Metaverse combining elements of competitive gameplay and immersive storytelling. Players choose from diverse factions, each with unique backstories and objectives, and command characters who embark on heroic missions across the cosmos. It's built on ICP and utilizes the platform's capabilities for decentralized and secure Web3 economy.



## Inside Dark Studio

IDS, is a dynamic studio with a strong commitment to crafting practical, community -enhancing applications. Our diverse portfolio spans from the eagerly awaited on -chain FPS battleground known as TBFZ to Chain ID, a cutting -edge solution offering an alternative means of safeguarding your personal identity.



## Eimolad

Team Eimolad is a dynamic group passionately driving innovation in the MMORPG realm through Web3 technologies. They are crafting an immersive, browser-based MMORPG that seamlessly integrates the distinctive features of Web3 into the gaming experience. Explore the limitless possibilities of the exciting world of Eimolad.





## Yuku

Yuku is building the worlds first full-feature open metaverse platform combining web3, generative AI and ZKPs. Yuku is a full-feature platform with high-end graphics that is open and decentralized and empowers creators with generative AI. It also enables avatars with Zero-Knowledge Identities (DID), has low costs for storage and fast transactions and is multi-chain

Creators and users get a real web3 experience and full ownership of all their data and digital assets. Yuku provides them with the tools and power to build, create, own, share, discover and govern their immersive digital environments, land, assets, content, experiences and activities.



## Paws Arena

Taking inspiration from a classic game that everybody knows and loves, Paws Arena is a game that aims to be the first of its kind hosted 100% on-chain by leveraging ICP's tech. All in-game assets tradable as NFTs, so that you're able to have fun and earn at the same time.

Paws Are is using the tools built by BOOM DAO in order for users to have a completely on-chain gaming experience.



## Cubetopia

Cubetopia – best summed up as “Minecraft meets World of Warcraft, on the blockchain” – features graphics and gameplay much the same as its counterpart, but with the added integration of NFTs, and is hosted entirely on-chain on ICP.

Cubetopia is already live and being played right now, however the project's



roadmap promises a wide array of new features and graphical and gameplay enhancements, including integrated DeFi marketplaces, in-game NFT minting, player voice-chats, multiplayer, faction systems, and more.

## Social dApps



### Factland

Using Factland, people can upload claims for community review and stake FACT tokens to vote whether they are true or false. Cases are decided by anonymous juries drawn randomly from the community to weigh the evidence and issue a verdict. Stakes are split between the winners, jurors, and community investigators who contributed the best evidence.



### Dmail

Unlike web2 platforms, where user data is often exploited for marketing purposes with profits being centralized, Dmail Network proposes a new approach – marrying the familiarity of traditional email functionalities with the benefits of full data ownership, decentralized storage, and monetization opportunities for user data and activities.

Over the past months, Dmail Network has become one of the fastest-growing decentralized social media projects, offering users an AI-enhanced decentralized communication platform designed to deliver encrypted email services.

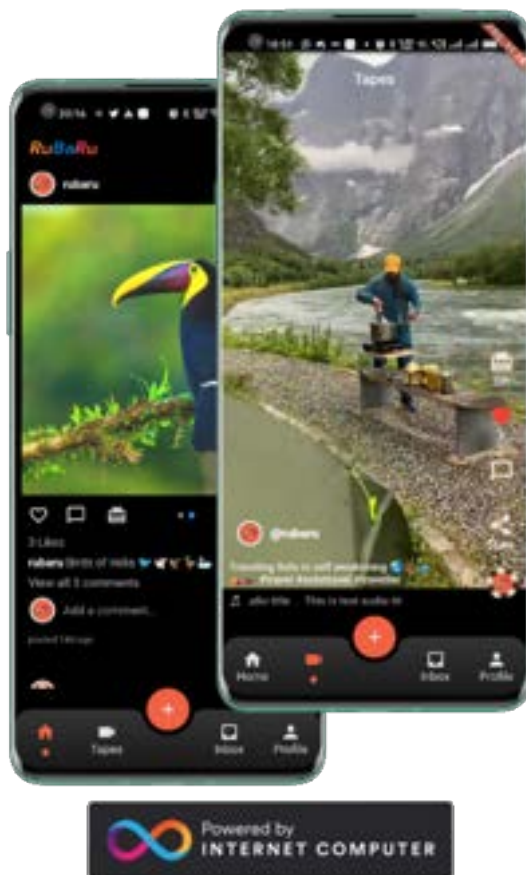
Dmail currently boasts over 6 million registered users, 117 million sent messages, and 62 million on-chain transactions.



### RuBaRu



RuBaRu aims to create a Mobile-First Fully OnChain Regenerative Content Creator-Consumer Economy owned and governed by the community, where creators, influencers, consumers, and brands unlock new opportunities, reshape digital creativity, and foster a thriving ecosystem of shared prosperity. RuBaRu is being built by a dynamic team of tech entrepreneurs, creators, marketers, and highly skilled developers, collectively possessing an average of 14+ years of experience in developing high-traffic products and enterprise applications used by millions of users.



## The Swop

The Swop is a multimedia company that aims to empower the entertainment industry by allowing them to seamlessly engage with crypto and NFT technologies through the use of gaming tournaments, conferences, and live events in both real life and 3D interactive metaverse spaces.



## DSCVR

DSCVR is not just a social media platform, it is also an easy-to-navigate SocialFi economy. A wide range of easy-to-use tools allow DSCVR's loyal and expanding user base to create, collaborate on, share, and monetize content, to interact with the creators they admire, and to interact with – and even build – user-governed communities tailored to their interests.

Communities and individual creators can earn digital assets through tips, airdrops, or NFT sales. Users can then choose how to deploy these profits – by putting them back into the community, for instance, or perhaps directing them toward a cause favored by members.

Users, meanwhile, can show their appreciation of content they admire through tips. Users can also send and receive airdrops and transfer tokens throughout the platform – all without ever having to set up a wallet.

DSCVR offers all the features users find most convenient about Web2 social platforms while making Web3 functionality more accessible than ever. Value flows seamlessly through the platform in the form of tokens, which can be easily shared or transacted. Users are building tokenized communities called portals around fungible tokens, NFTs, and Web3 games. Portals give ownership to communities by granting roles and permissions based on token holding.

Further, DSCVR stays true to its Web3 ethos by emphasizing user ownership. With DSCVR, individuals can decide how to monetize their content, and what shows up in their feeds, and can even have a voice in the direction of the platform itself. The network also offers users a degree of financial power unheard of in Web2.



## Signals

Signals is a map-based app for meeting and organising with people in your local area. It reconnects geographic locality and physical space, with online organising and tooling, giving communities direct access to new blockchain infrastructure to invigorate local economies and build real connections.



Signals' mission is not simply to create a unique, fun, quirky, beautiful app - though that will undoubtedly form part of it's early story - but it is instead to build the platform of the future, where citizens can come together to organise and effect change in their local communities and where people can meet one another and find the tools to organise together on issues which matter to them.

## Dev Tooling & Infrastructure



### ICP MobileKit

Developed by Bity, the "ICP MobileKit" project aims to develop IOS open-source libraries for mobile applications to seamlessly support ICP token integration. The project's goal is to provide developers with comprehensive

tools, resources, and components that enable easy incorporation of ICP token functionality such as wallet functionality, transaction management, balance tracking and also buy/sell capabilities into their mobile applications.



## [AgorApp](#)

AgorApp provides an Interactive Development Environment (IDE) to learn how to build on the Internet Computer. It is meant to support Web2 developers to learn Motoko and support the hiring process for businesses building on the Internet Computer. This next proposal involves creating tutorials for Dfinity's documentation that will be embedded using an Iframe. In addition, advancing the IDE's capabilities.

## [Mops](#)

Mops is a package manager for Motoko with fully on-chain package registry.

MOPS was created as a simple and convenient alternative to the Vessel. With MOPS it is easier to manage dependencies and it has a simpler config. MOPS makes it easy to find, publish, and install Motoko packages.

## [IC-SIWE](#)

Sign In With Ethereum(SIWE) is a collection of support libraries and template applications to simplify the process for Ethereum developers to enable sign in with the EIP-4361 standard (SIWE), and facilitate interactions with Ethereum-enabled canisters on the IC, thereby addressing the scalability issues and enhancing the developer experience for the Ethereum developer community.

## [Demergent Labs](#)

The main focus of Demergent Labs is to accelerate the adoption of the Internet Computer through building and encouraging the adoption of core open source tools or applications, at first very focused on the developer layer of tools/apps. As the project progresses the plan is to have a team of up to 4 full-time developers including myself. I also hope that Demergent Labs can provide leadership and insight within the ongoing development and governance process of the Internet Computer.

There are three flagship projects Demergent Labs is pursuing (in order of importance/impact):

1. [Azle](#) - TypeScript and JavaScript CDK for the Internet Computer
2. [Sudograph](#) - GraphQL database for the Internet Computer
3. [Kybra](#) - Python CDK for the Internet Computer



### Eiger

Ethereum Light client for the ICP – Securing cross-chain communication from Ethereum to the ICP with an on-chain Light Client. Helios, a nascent Ethereum light client implemented in Rust, is the centerpiece of this integration. It's a software component that can be integrated into the canister smart contracts on the Internet Computer to enable interactions with the Ethereum blockchain. Helios leverages Merkle proofs and sync committees to efficiently verify Ethereum state and events, eliminating the need for complete blockchain validation. This lightweight approach aligns perfectly with the Internet Computer's architecture and goals.



### Qstn

QSTN is a Web3 survey marketplace where businesses fund surveys, reward participants, and uphold user privacy through our data wallet-driven profiles.



### CarbonCrowd

Leveraging real-time data analytics of global power grids and node electricity draw, Carbon Crowd has achieved carbon awareness for the Internet Computer.



### Zondax

Zondax, known for its extensive collaboration with major L1 ecosystems, has achieved several milestones this year with ICP that vary from integrating ICP into Ledger Live to developing solutions to simplify Blockchain game development on the IC platform. Now, team's latest project focuses on creating a Trust Management solution based on Kubernetes Canisters.



### Plug Wallet



Plug aims to solve several points of friction on the Internet Computer for both developers and users.

**For users?** It means having one main wallet (your Principal ID) in your browser or phone to manage all your assets (Cycles/ICP/tokens, NFT's, etc.) and to log into any IC app. No need to worry about having separate wallets for different apps and tokens, or having multiple identities per device/app (like you would when using Internet Identity).

- Log into IC apps from your browser (and soon mobile device) in one click using the same Principal ID.
- Manage, send and receive all your IC assets from one place, with one ID.
- Save contacts (aka name ID's) in a local storage address book.

**For developers?** It will help offer seamless web/app experiences on the Internet Computer, handling authentication and wallet connection for their users. The same experience a Dapp user would expect on Ethereum, but built for the Internet Computer.

- Authenticate users, and their balances, in one click with just a Principal ID.
- Trigger transfers or transaction requests to user's wallets from apps.
- Query and display a user's balances in the app.



**Funded**

Funded is a reward-based

crowdfunding platform that is powered by blockchain technology. The platform enables individuals to raise funds, from around the globe, for their creative, entrepreneurial, or social projects by offering rewards in exchange for pledges. It operates similarly to traditional crowdfunding platforms such as Kickstarter and GoFundMe, but with some unique features that set it apart.

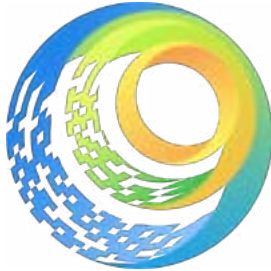
One of the most notable features of Funded is that all rewards are tied to digital contracts called Non-Fungible Tokens (NFTs). NFTs are unique digital assets that are verified on the blockchain, and they serve as proof of participation in a crowdfunding round and as an access token to rewards. By using NFTs, participants have the option to sell their rewards on secondary marketplaces, potentially making a profit.



Funded also employs smart contracts to automate the entire funds management system from collection to disbursement and reimbursement, which makes the system tamper-proof and creates a safer alternative to traditional crowdfunding companies. The smart contracts also provide users with fast transaction speeds, low fees, and a high degree of transparency.

Funded accepts three major cryptocurrencies, including ICP, ETH, BTC and even ckBTC and runs its

smart contracts on the Polygon and Internet Computer blockchains. This provides users with a secure and efficient way to manage their funds while also providing a high degree of transparency and trust.



## Omnia

IC WebSockets enables canister backends running on the Internet Computer to send updates to the frontends running in the users' browsers.

It provides a simple interface (a CDK for the backend and an SDK for the frontend) which developers can use in order to create a full-duplex communication channel between the frontend and backend. This makes developers' lives easier as they do not have to reinvent the wheel for every application and implement their own version of clients polling the canister to get updates. It also reduces the load on the canister as it removes the need of having each client polling the canister directly.



## InvoiceMate

InvoiceMate is a Blockchain & AI-powered invoicing platform that acts

as a bridge between SMEs and Financing Institutions. This easy digital inclusion leads to even easier financial inclusion by enabling SMEs access to various forms of credit like invoice discounting, factoring, BNPL, and supply chain financing.



## Weavechain

Weavechain upgrades databases with blockchains, making data provable, exchangeable, and truly self-sovereign. We used Weavechain to build RoloDEX on ICP, a peer-to-peer directory service that leverages ICP for security.



## Querio

Querio stands as the first decentralized Web3 search engine that enables seamless discovery of dApps across multiple blockchains.



## RabbitHole

Rabbit Hole is an encrypted file storage



that runs fully on-chain. It keeps your files safe and secure. All files that you throw down the rabbit hole will be encrypted and placed in the storages of the decentralized Internet Computer.

The data is encrypted with your private key, which only you have, which excludes any unauthorized access. Now you are the full owner of your data.



## Faceless

Faceless is a layer-2 protocol based on users' verifiable human-readable identifiers aiming to realize the following goals: regulation-compliant, keyless, and privacy-preserving.

The central problem of World 3.0 today is the conflict between regulation-compliance requirements and the lack of infrastructure to address this issue. Faceless develops a cross-platform payment infrastructure based on users' verifiable human-readable identifiers (HRI), i.e., the users' Web 2.0/2.5 accounts such as one's exchange account, email address, or Twitter account, etc. Therefore, we leverage the KYC information already available in these accounts to build a strong foundation for regulation compliance. To guarantee payment privacy, our scheme is based on a combination of

identity-based encryption (IBE) and zero-knowledge proof (ZKP) technology, which guarantees all the transactions will be directly tied to the users' verified HRIs while still privacy-preserving. We also leverage the entropy available in the HRI accounts to ensure our scheme is keyless, i.e., the users do not have to set up an extra password when they use our product.

# AI

## Tinystories

A canister that enables the generation of tinyStories without any limit on the story length. This project demonstrates how open source dapps can run an LLM fully on-chain.

## Uncensored greats

UncensoredGreats is an existing Web2 App that allows you to chat with your favorite authors based on their Collected Works. The Goal: An AI platform where users choose the Relative Truth of the AI they're interacting with. This is a use case optimized for Web3, particularly, the Internet Computer, because lightweight AI actually works better here because it stays closer to primary sources.

My goal is to migrate the entirety of my existing tech stack to IC Canisters. I didn't think this was possible until I saw LLAMA and work on vector databases being done on the IC.

My project is aimed at everyone that likes to use AI, but specifically those looking to use it for research in a very specific domain, and/or those looking to avoid the internal bias/censorship of Big Tech AI.



## [ELNA.AI](#)

ELNA's diverse team, with well-rounded skill sets in front- and back-end development, ML, blockchain development, UX and marketing is dedicated to revolutionizing GenAI interaction through a decentralized platform that empowers users to create and deploy customizable AI agents using advanced ICP blockchain technology.





# ICP HUBS NETWORK

# A Year of Remarkable Advancement

In 2023, the ICP HUBS NETWORK underwent an impressive transformation, evolving from its inception into a global network featuring 23 hubs (+40 regions in 2024). This significant growth spans key blockchain regions, showcasing the network's widespread presence and influence.

At the heart of this rapid expansion, the Internet Computer (ICP) emerges not solely as a powerful technological platform, but also as a transformative ecosystem with a distinctive "glocal" approach. This philosophy, centered on grassroots community development and regional adoption,

is reshaping the landscape of global Web3 community engagement and activation.

ICP HUBS transcend the conventional modality of collaborative web3 instances, such as ambassador programs and local communities; they are fundamentally reshaping how stakeholders engage with blockchain technology. These hubs serve as decentralized catalysts of creativity and advancement within the crypto world, fostering collaboration among innovators, entrepreneurs, and developers.

Representing a departure from traditional, centralized approaches to tech innovation and adoption, ICP HUBS bring on a significant leap toward a community-driven environment.



# Hubs spotlight

## ICP Hub Mexico



### Key Focus

- Hackathons
- Institutions
- Community Initiatives

### Key Personas

- Entrepreneurs
- Students
- Degens

ICP Hub Mexico is dedicated to fostering the adoption of Internet Computer technology through educational initiatives; including bootcamps, ideathons, and hackathons. Additionally, the hub is actively involved in fortifying entrepreneurship by overseeing the operations of two already-launched incubators.



The primary objective is to create and cultivate fresh avenues for development on the Internet Computer within the Latin American region.

### Key initiatives:

- Zona Tres Labs serves as a dedicated incubator for entrepreneurship projects and web solutions centered around Internet Computer technology. The inaugural edition witnessed the active participation of 25 teams, resulting in the selection of 5 projects deemed eligible for subsequent grants and financing rounds.
- ICP Innova, the college incubator, recently concluded its inaugural edition in February 2024, resulting in the successful deployment of 4 projects on the ICP mainnet.

## ICP Hub India



### Key Focus

- Content
- Hackathons
- Community

### Key Personas

- Developers
- Degens
- Web3 Entrepreneurs

ICP HUB India (Crewsphere) is swiftly becoming a key player in the Indian blockchain scene. Notable projects like "Sankalpa Web3 Tour" and a significant - 2 months long- cross Country Internet Computer Protocol (ICP) hackathon underscore its commitment to fostering adoption of blockchain technology. With a strategic focus on utilizing blockchain for solutions across various sectors, this HUB aims to solidify its position as a leading figure in India's blockchain landscape.

Through initiatives like inaugurating over 30 college chapters, Crewsphere is actively cultivating the next generation of blockchain professionals and entrepreneurs. The organization's incubator program and a career guidance showdown further demonstrate its dedication to nurturing entrepreneurial talent and guiding students toward successful careers in the web3 space.

In these endeavors, Crewsphere contributes not only to the growth of the blockchain ecosystem but also plays a pivotal role in shaping the future for aspiring professionals and entrepreneurs in the web3 domain.

### Key Initiatives

- Sankalpa ICP Roadshow: across three phases of the Sankalpa Tour, the hub covered the entire nation, hosting over 75 successful educational events, including sessions with premier institutions like IITs and NITs.
- Blockbash Hackathon: organizing 50 hackathons has been a remarkable effort and a notable achievement, bringing together over 2000 developers who actively deployed smart contracts on the Internet Computer blockchain.





- Consultancy to Govt., thought leaders and businesses: providing strategic guidance to government entities, influencers, and businesses seeking to integrate web3 into their operations has been a core focus. Noteworthy projects include powering the VR experience at Mata Chintpurni temple, visited by over 1 million people yearly. Additionally, a successful pilot program in collaboration with Himachal Pradesh Region was conducted, introducing Metaverse-based education in schools.

## ICP Hub Kenya



### Key Focus

- Hackathons
- Community
- Events

### Key Personas

- Hackathons
- Community
- Events

ICP HUB Kenya (Kushite) is committed to fostering the Internet Computer ecosystem in the region through a structured 4-step approach. Commencing with evangelism, the initiative seeks to enhance awareness level around ICP at large. Following this, a dedicated focus on education ensures the creation of a knowledgeable community. Kushite plays an active role in project incubation, nurturing developers, fostering innovation, and cultivating disruptive ideas. Ultimately, the Hub aims to facilitate the launch of innovative products and impactful solutions developed on the ICP platform.





### Key initiatives

- Hackathons Across East Africa. Successfully organizing 11 hackathons throughout East Africa, the hub managed to attract a pool of highly talented participants. These events serve as dynamic platforms for collaboration, skill enhancement, and the development of innovative solutions within the Internet Computer ecosystem.
- Official partnerships with 20 Universities in Kenya. Kushite has established official partnerships with 20 universities in Kenya, creating a robust network where young developers can easily access education and training opportunities. This strategic

- Government partnership with the Ministry of IT in Rwanda. This partnership has been instrumental in creating a supportive ecosystem for ICP initiatives and projects. This collaboration reflects a commitment to facilitate technological innovation and growth on a cross-border level in the region.
- ICP HUB Kenya proudly hosts the most significant blockchain developer community in the region, boasting over 1,000 active developers. This thriving community provides a rich resource for collaboration, idea exchange, and collective advancement within the Internet Computer local ecosystem.
- Through dedicated evangelism efforts, the hub has successfully become a household name in Kenya. This heightened visibility demonstrates the commitment to raising awareness and promoting the benefits of the Internet Computer platform, further solidifying a position of key player in the region's tech landscape.

### ICP Hub Canada&US



#### Key Focus

- BD
- Hackathons
- Events

#### Key Personas

- Web2 Enterprises
- Students
- Web3 Entrepreneurs



ICP HUB Canada&US is committed to advancing the Internet Computer ecosystem in North America. Main efforts are characterized by a steadfast commitment to education, active engagement with universities, participation in incubators, and robust business development. Proudly holding the position of the largest

contributor to the Internet Computer in Canada, the hub stands out with several distinctive hallmarks.

These include fostering collaborations and partnerships with globally renowned universities and delivering educational excellence within the blockchain domain. Identifying and nurturing top-tier developers to build on the Internet Computer aligns with the ethos of educating, incubating and grooming the next generation of blockchain innovators.

**Key Initiatives**

- CoinMarketCap Community talk: a talk hosted on one of the most prominent crypto platforms reached over +17k live viewers with extensive social media interactions. This session, focusing on promoting Internet Computer, ICP HUB Canada&US, and with the participation of the DFINITY Foundation, garnered visibility among millions of users.
- ETH Toronto conference: participating in the pivotal ETH Toronto event, the hub was officially launched. The event featured a day of workshops dedicated to Internet Computer, drawing in over 1000 attendees. The booth successfully captured interest from diverse stakeholders, including projects, companies, developers, investors, and media representatives from across Canada.



- ICP Master, a premier tech education platform catering to professionals, web2, and web3 developers, has been proudly introduced. Offering a range of Masters and courses spanning from 5 days to 3 months, strategic partnerships have been formed with industry leaders such as LearnWeb3DAO, CryptoChicks, and CollegeDAO. The goal is to onboard developers and projects to the ICP ecosystem, fostering innovation and growth in the web3 space.
- Quantum Leap Labs Incubator: Web3-centric incubator in North America, providing services to leading projects that have received developer grants from DFINITY Foundation. Notable collaborations include ArtizYou, MapZ, Lucrisma, ICPSig, PixelPaddle, and Nextme. Furthermore, collaboration agreements have been established with major companies and multinationals such as HCL, DexTools, DexScreener, and MoonPay.

## ICP Hub Indonesia



### Key Focus

- BD
- Government
- Community

### Key Personas

- Students
- Entrepreneurs
- Degens

ICP HUB Indonesia (Disruptives) operates as an innovation hub committed to accelerating the widespread adoption of Internet Computer Protocol (ICP) technology. The primary objective is to empower local communities and nurture emerging talents, guiding them to recognize the transformative potential of this technology in shaping the future.

The overarching vision is to establish Indonesia as the next global tech leader, solidifying the Internet Computer as a







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pivotal force propelling the rise of blockchain technology in Southeast Asia and beyond. That goes hand-in-hand with a strong focus on BD, enterprises, and institutions.

### Key Initiatives

- CoinFest Asia Participation: shared the stage with representatives from Polygon, Sui, and Coinbase to highlight the capabilities and vision of ICP.

- Bali Blockchain Summit  
Organization: played a pivotal role in organizing the summit, with ICP as a key sponsor, attracting 1300 attendees over two days and fostering dialogue and collaboration within the international blockchain community.
- Indonesia On-Chain: launched the program with backing from key ministers, including the Minister of Tourism and Creative Economy and the Minister of Communication and Informatics, as part of the National 1000 Digital StartUps Program. Engaged 75 high schools and 43 universities, with the kickoff drawing 750+ student attendees and government representatives.
- Disruptives ICP Incubator Program: handpicked 12 projects out of 100+ submissions for an intensive 7-week incubation. Each project delivered a comprehensive MVP fully built on-chain on ICP, showcasing rapid and tangible progress in both front-end and back-end development, as well as website creation.
- Hackathon Highlights: attracted 430 participants, resulting in 9 fully functional MVPs that demonstrate a high degree of innovation across multiple verticals and highlight a robust talent pool for potential future developments on the Internet Computer.

## ICP Hub Korea



### Key Focus

- BD
- Events
- Education

### Key Personas

- Web2 Enterprises
- Web3 Projects
- Students

ICP.Hub Korea specializes in organizing ICP events, executing targeted marketing strategies, fostering partnerships, driving business development, and providing developer education in Korea. The hub has achieved success by hosting numerous impactful ICP gatherings dedicated to professionals, investors, and enthusiasts, steadily growing the ICP community in S. Korea through a strategic approach.

Notably, ICP.Hub Korea has successfully persuaded Web2/Web3 companies to embrace strategic partnerships and transition to ICP, extending full support for their project and business development.

Additionally, it holds the distinction of being the first blockchain-driven organization in Korea to formalize a Memorandum of Understanding (MOU) with a network of Korean universities (including the prestigious Korea University). This groundbreaking move has paved the way for extensive ICP developer education and training, setting the foundation for future talent acquisition and growth.



### Key Initiatives

- Technical Cooperation with Korea Digital Asset (KODA) - A deal for custodial services and collaboration with KODA, a virtual asset custody service formed by KB Kookmin Bank, Hashed, and Hatch Labs. This first-of-its-kind agreement in Korea supports ICP projects, facilitating custodial services for tokens of ICP-based projects.
- Strategic Partnership with The Moon Labs for Gaudi Web3 Project - The Gaudi Knowledge Association in Spain selected The Moon Labs as its exclusive global digital partner for Web3 development on ICP. Together, they aim to actively explore various Web3 and digital businesses related to Gaudi through ICP.

- MOU with Korea University - An agreement fostering blockchain growth in diverse directions, providing opportunities for students learning ICP blockchain technology for better education and training. The collaboration aims to build a local blockchain industry ecosystem, promote ICP ambassadors, and cultivate competitive global Web3 leaders.
- Partnership with CarrieVerse - Formed a strategic partnership with CarrieVerse, currently migrating to ICP. They collaborate on expanding the ICP ecosystem, leveraging their user base, business cooperation, and active marketing. CarrieVerse, a successful metaverse project in Korea, boasts over 500,000 downloads and 30,000 daily active users.
- ICP Korea Meetup, Gateway, Gala Dinner & ICP House - The inaugural ICP Korea Meetup in September 2023, a highlight of the Korean Blockchain Week,, strengthened the ICP presence through networking among Web3 experts, developers, investors, builders, entrepreneurs, and exchanges. The December 2023 events combined, saw a total of 1,500 participants and made wave across all Asia. ICP HOUSE SEOUL 2024, planned for March, will serve as a much expected follow-up.

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