Build on the internet

Internet Computer
DFINITY Foundation, Switzerland

- Emerged from early Ethereum community in 2015
- DFINITY Foundation established October 2016
- Swiss not-for-profit, no corporation is involved
- Research centers in Zurich and San Francisco
- World’s largest team cryptographers
- 270+ people globally

1600+ research papers
100 000+ academic citations
250+ technical patents
Internet Computer is the world’s highest usage public blockchain

2,011,578,950 Blocks processed
36 parallel subnets
37.1 MB/s block throughput capacity

Throughput
Capacity horizontally scales as subnet blockchains are seamlessly combined into one unified blockchain. Blocks and transactions per second are unbounded.

259,954 ETH equivalent TX/s
4,754 Transactions/s

Comparing transactions
Transactions invoke "actor" canister smart contract computations, which subnet blockchains can run concurrently (yet deterministically).
evolution of crypto

- **Bitcoin**: 2009, digital gold
- **Ethereum**: 2015, smart contracts
- **Internet Computer**: 2021, autonomous cloud
Internet Computer advances the internet from being a network that connects everyone and everything, to also being an autonomous public cloud that the world builds on...
Internet Computer multi-chain technology enables the WORLD COMPUTER
Ethereum introduced a “magic” new form of software

2015 smart contracts

- **tamperproof**: no firewall or security team necessary
- **unstoppable**: nuke proof, no servers or failing over
- **autonomous**: can remove human control & backdoors
- **tokenization**: hold, process & transmit value like data
- **composable**: trustless dynamic collaborative building
- **borderless**: code/services have no geography
Internet Computer introduced a **new form of smart contracts**

2021 canister **smart contracts** add powerful capabilities that enable crypto cloud...

<table>
<thead>
<tr>
<th>multi-chain</th>
<th>low cost</th>
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<tr>
<td>code natively interacts with other chains</td>
<td>compute costs approach trad. IT</td>
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<th>scalable</th>
<th>Speed</th>
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<td>can service millions of users</td>
<td>run at web speed not blockchain speed</td>
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<th>efficient</th>
<th>Web</th>
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<td>reduce IT carbon footprints</td>
<td>crypto speaks web (http) directly</td>
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software autonomy enables true web3
HotOrNot.wtf

tokenized web3 TikTok delivered direct into the browser

- bet tokens on whether videos are hot or not
- earn tokens by helping with content selection
- tokenized content moderation by users
- creators of viral content earn rewards

community is founderized community is industrious workforce community owns & governs
OC.app

tokenized web3 chat service delivered direct into the browser

- 100% on-chain messaging service
- accounts also wallets i.e. socialfi
- send satoshis in messages... no wallet
- chat messages are transactions...

100% DAO-controlled
100% autonomous
ICDEX.io is an order book exchange that is a smart contract.
a grass roots army is now building on the Internet Computer
join the movement
tamperproof

the web3 services just shown store and process cryptocurrency and support large numbers of users without need for a firewall or security team.
open source to open internet service (OIS)

open source project

open internet service

[ an evolution of dao technology ]

source code manager

source code

human

management

autonomous

management

service nervous system

web3 service or system
services become autonomous “open internet services”

- transparency: changes visible to all OIS community
- security: every change applied by DAO (no backdoor)
- autonomy: services become unstoppable protocols
- ownership: communities can own + govern web3
- tokenization: millions of web3 users can be founderized
- fundraising: Web3 project DAOs can raise money
- scalable: human support scales with needs
- reach: borderless communities

governance by SNS DAOs is an epoch-defining game changer
web3 often faces this key challenge today ...

blockchain ecosystem ↔ CENTRALIZED PLATFORMS ↔ Web3

hackers
censorship
gatekeepers
vested interests
it’s not borderless
must trust developers
trusted intermediaries limit decentralization ...

0.01% compute decentralized

99.99% compute centralized

Web3

platform owners are intermediaries
developers are intermediaries

depends on my credit card!

please place a DAO in control as promised

Wait! What?
web3 without trusted intermediaries

runs 100% autonomously

Web3

we are sovereign!
we are founders!
I'm an owner!
tokens are fun!

revolution!

governance
tokens

community
enterprise without trusted intermediaries

runs semi-autonomously

Enterprise

we are secure!
no firewalls!
no siem logs!
no viruses!
we are unstoppable!

revolution!

governance tokens

IT team
help enable a “blockchain singularity” in which most of humanity’s systems and services are rebuilt and reimagined end-to-end on a permissionless World Computer
by 2030 AI will increase the productivity of knowledge workers by 4X and boost global productivity by $200 trillion.

In the future, AI models will analyze nearly all our business data, generate nearly all our metaverse content, and be inside systems such as compressing media data.
New ai compute units are coming to the Internet Computer to power genuine web3-native ai models.

- data security
- model security
- web3 integration
Internet Computer Protocol

crash course
Internet Computer Protocol is a crypto protocol that combines node machine devices run by independent node providers.
nodes are combined to create subnet blockchains ...
... subnets replicate and run *canister* smart contracts ...
... and together form a scalable and efficient virtual computer ...
clients can verify any TX result using ICP’s master “chain key”...
... cryptography in web browser runs transparently in background

smart contracts pay for execution ("reverse gas") – users don’t need tokens to interact
Use your device to sign in

TPM

WebAuthn (+ FIDO)

Internet Computer
OpenChat

A decentralized chat app governed by the people for the people

OpenChat is a fully featured chat application running end-to-end on the Internet Computer blockchain.

Launch app

OpenChat Updates
Public group with 2777 members

Hamish
Monday
Website upgraded to 2.0.455
- Fix bug with predictive text on iPhones.
Choose your Internet Identity
to connect to OpenChat

165874
More options
Choose your Internet Identity
To connect to OpenNet

165574
Mute/ voiced

Use Face ID to sign in?
You will be signed in to "identity.ic0.app" with your passkey for "Internet Identity".

Signing in
Other Sign-In Options
LigenTex 09:24
how to get airdrop? I have diamond, but should I claim it someway? Love to hear from you❤️

7 7

CaseySawyer and Kaywork344 joined the group

abeehafiz 09:24
LigenTex
how to get airdrop? I have diamond, but should I claim it someway? Love to hear from you❤️

yeah, every diamond user will get some coins this time. So stay tuned!

BAO 09:24
What’s on your mind?
trustless multi-chain
smart contracts create public keys, and magically sign for them ...

chain key crypto APIs provided to smart contracts, which don’t need private keys
... supporting a new trustless native multi-chain paradigm

seamless Bitcoin & Ethereum interoperability via trustless bridge-free network-level integration
ckBTC is a bitcoin twin with 1s finality and negligible TX cost

example of recent application of chain key crypto capabilities

ckBTC ledger smart contract

ckBTC provides an alternative to the Lightning network, supporting bitcoin usage in DeFi, social media, games, the metaverse...
internet autonomy
the Network Nervous System (NNS) is a DAO-evolution integrated into the network’s protocols. ICP neurons vote on:

- adding new “node provider” profiles
- creating subnets by combining node machines
- upgrading the protocol (forks are unnecessary)
- much, much more...

when submitted proposals are adopted, the network executes them automatically.
the network adapts and evolves autonomously in real time...

nns.internetcomputer.org
each SNS does for a dapp/service what the NNS does for the network:

1. developers of a service wish to decentralize control...
2. developers propose to the NNS to convert the service into an SNS DAO
3. if proposal adopted, NNS creates a new SNS and governance token
4. the SNS is assigned exclusive control over the service’s canisters
5. a “decentralization swap” exchanges (distributes) gov. tokens for currency
6. the currency stays in the SNS treasury under community control
7. an autonomous open internet service (OIS) has been created

service can founderize users by giving them gov. tokens, creating a vast industrious virtual workforce

permissionless open governance of a running internet service
build on the internet using the Internet Computer
decentralize everything
https://internetcomputer.org