



Developer Tools, Infrastructure
and Core Applications

Harness the power of Ethereum
consensys.net | **@consensys**

“We are all passionately building the decentralized world wide web on which economic, social, and political systems will be built going forward.”



Joseph Lubin

Founder of ConsenSys
Co-founder of Ethereum

ConsenSys is a global formation of technologists and entrepreneurs building the infrastructure, applications, and practices that enable a decentralized world.

CONSENSYS
LABS

Our venture studio supports entrepreneurs and developers around the world as they build on the Ethereum platform

CONSENSYS
ACADEMY

Our educational institution is developing the global blockchain ecosystem by bridging the Ethereum knowledge gap

SOLUTIONS

Our consulting arm helps organizations across the globe build, test, and deploy public and private blockchain solutions

CAPITAL

ConsenSys Capital is the constellation of financial service offerings for digital assets and blockchain businesses



Ethereal is a cultural nexus where builders, humanitarians, and artists explore our decentralized future together

We are 850+ blockchain experts, entrepreneurs, computer scientists, designers, engineers, consultants, and business leaders across 28 countries and 6 continents.

INFRASTRUCTURE

Infura



Scalable blockchain infrastructure

Infura provides secure, reliable, and scalable access to Ethereum and IPFS. It's built by a passionate team from all over the world who have come together to deliver the best infrastructure and tools to help developers build decentralized applications that can scale to meet the demand of users. Infura currently handles 10 billion+ requests per day, transfers 2.0PB of data each month, and serves over 35,000 developers and dApps.

BLOCKCHAIN BASED

We eliminate the need to install, configure, and maintain costly Ethereum infrastructure

RELIABLE & SCALABLE

Our Ferryman™ middleware improves reliability and helps us scale quickly to meet your demand

DISTRIBUTED STORAGE

Access IPFS seamlessly without the hassle of managing the infrastructure

Learn more at infura.io

INFRASTRUCTURE

Pegasys



Production grade Ethereum protocols

PegaSys is creating a framework for collaborative innovation for the public-chain community and leading enterprises.

We are developing performant and dependable solutions for a wide range of businesses, using the most innovative work from the Ethereum ecosystem. Our work aims to incorporate and involve the public-chain community and private chain work by enterprises.

We are focused on key challenges including scalability, privacy, permissioning, and others, for both public and private chains. The PegaSys team is composed of leading engineers in big data processing, applied cryptography, distributed systems, cloud services, and blockchain development.

PERMISSIONING & ACCESS CONTROL

PRIVACY

SCALABILITY

STABILITY

EASE OF DEPLOYMENT

Learn more at pegasys.tech

DEV TOOL

Truffle



Your Ethereum swiss army knife

Truffle is the most popular development framework for Ethereum with a mission to make your whole life a lot easier.

BUILT-IN SMART CONTRACT COMPILATION, LINKING, DEPLOYMENT, AND BINARY MANAGEMENT

AUTOMATED CONTRACT TESTING FOR RAPID DEVELOPMENT

SCRIPTABLE DEPLOYMENT & MIGRATIONS FRAMEWORK

NETWORK MANAGEMENT FOR DEPLOYING TO BOTH PUBLIC & PRIVATE NETWORKS

ACCESS TO HUNDREDS OF EXTERNAL PACKAGES

INTERACTIVE CONSOLE FOR DIRECT CONTRACT COMMUNICATION

EXTERNAL SCRIPT RUNNER THAT EXECUTES SCRIPTS WITHIN A TRUFFLE ENVIRONMENT

BUILT FOR SPEED

Learn more at truffleframework.com

DEV TOOL

BTC Relay



A bridge between the Bitcoin blockchain & Ethereum smart contracts

BTC Relay is a building block that allows Ethereum contracts to securely verify Bitcoin transactions without any intermediaries: in short, users can pay with Bitcoin to use Ethereum dApps.

We are an Ethereum contract that stores Bitcoin block headers. We use these block headers to build a mini-version of the Bitcoin blockchain: a method used by Bitcoin SPV light wallets.

We are open source, trust-free, and decentralized.

OPEN SOURCE

Participate through Github

EASY TO USE

BTC Relay is easy to integrate in an Ethereum application or smart contract

DECENTRALIZED

Anyone can be a Relayer: No heavy hardware or electricity costs like Bitcoin mining, and no special privileges for any entity

FLEXIBLE PAYMENTS

Reach a wider audience with your Ethereum application (dApp) by opening up payments to Bitcoin users

Learn more at btcrelay.org

DEV TOOL

Nethereum



Open source .Net solutions for blockchain

We build open source solutions, tools and libraries for new and existing .NET developers and enterprises to work with blockchain technologies.

We keep setup simple so you can focus on building

Nethereum provides a consistent and modular interface to various Ethereum clients and re-usable standard smart contract libraries. Our aim is to simplify the .NET developer experience at all levels providing code generation, templates, sample applications, solutions, tools and support. We help you from initial smart contract creation to final blockchain solutions.

Combine Nethereum and .Net to create or integrate

CROSS PLATFORM MOBILE, DESKTOP, WEB AND IOT APPLICATIONS OR DAPPS

ENTERPRISE APPLICATIONS

GAMES FOR ALL CONSOLES, DESKTOP, MOBILE AND WEB

DAPPS USING THE LATEST WEB ASSEMBLY

VIRTUAL REALITY OR AUGMENTED REALITY EXPERIENCES

CLOUD SERVICES

EXISTING .NET SOFTWARE

Learn more at nethereum.com

DEV TOOL

CONSENSYS DILIGENCE presents

Mythril



Security analysis for Ethereum smart contracts

The Mythril mission is to raise the baseline security level of all smart contracts deployed on the Ethereum blockchain. To achieve this, Mythril provides a free security analysis API that can be seamlessly integrated into tools, testing pipelines and development environments commonly used in the Ethereum ecosystem. End users, such as developers, testers and auditors, can use Mythril tools to address security from the beginning of the development lifecycle and continuing on through live deployment.

MYTHRIL CLI

The classic 'myth' command line tool for auditors is available via Pypi or as Docker Image

MYTHRIL API

Use the free API to build your own smart contract analysis tools or add security analysis to your build process

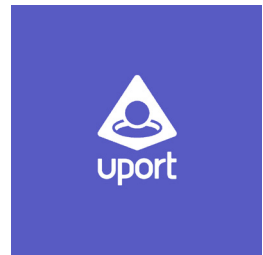
DEVELOPER TOOLS

Lightweight tools, IDE extensions and continuous integration

Learn more at www.consensys.net

CORE COMPONENT

uPort



Open identity system for the decentralized web

uPort returns ownership of identity to the individual. uPort's open identity system allows users to register their own identity on Ethereum, send and request credentials, sign transactions, and securely manage keys and data.

Take back control of your identity.

PROTOCOLS

uPort consists of identity and messaging protocols that together form an interoperable identity layer for the decentralized web

CREDENTIALS

uPort is building a shared identity web of trust. An app can request access to the set of credentials a user has collected from the network. Users can always choose what to share.

PRODUCTS & TOOLS

Our modular open-source components, developer tools, and mobile clients help you connect with your users. We help make it simple to build on Ethereum.

SELF-SOVEREIGN WALLET

Sign transactions and manage your keys & data in one simple, secure location

CONNECT

Simple Authentication and SSO for dApps or modern web applications

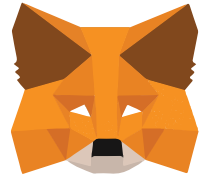
MOBILE SDK

uPort accounts in your own mobile app

Learn more at www.uport.me

CORE COMPONENT

MetaMask



Ethereum to your browser

MetaMask is a bridge that allows you to visit the distributed web of tomorrow in your browser today. It allows you to run Ethereum dApps right in your browser without running a full Ethereum node.

MetaMask includes a secure identity vault, providing a user interface to manage your identities on different sites and to sign blockchain transactions.

You can install the MetaMask add-on in Chrome, Firefox, Opera, and the new Brave browser. If you're a developer, you can start developing with MetaMask today. Our mission is to make Ethereum as easy to use for as many people as possible.

Learn more at metamask.io

CORE COMPONENT

Alethio



Blockchain transparency and analytics platform

Alethio is an analytics platform that leverages machine learning and semantic modeling to provide deep transparency into the Ethereum blockchain. Unlike existing solutions, our dashboards provide robust insights into interactions between accounts and smart contracts at the application layer, enabling customers to achieve a much clearer and holistic understanding of how their businesses are performing on the Ethereum blockchain. Additionally, predictive signals and alerts actively flag anomalies and malicious activity around a user's account or smart contract.

ADVANCED ANALYTICS

Our platform captures and synthesizes block data in real-time on public Ethereum or private Ethereum-based blockchains (including Quorum) and presents relevant information via clear, accessible dashboards.

MODULAR INTERFACE

Clear, dynamic dashboards monitor key metrics at the application layer of the blockchain. The interface can be custom configured to show account and contract rankings, account timelines, and more.

ALERTS & ISSUE TRACKING

Machine learning capabilities detect anomalies, attacks, and novel events (e.g. DOS attacks) and trigger notifications via any medium (e.g. email, twitter) to inform users of events that could impact their account

Learn more at aleth.io

CORE COMPONENT

Kaleido



KALEIDO

Enterprise blockchain SaaS platform

Kaleido radically simplifies the process of creating and operating an enterprise blockchain. Kaleido streamlines the process of standing up secure, private blockchain instances without sacrificing performance or extensibility. The managed cloud platform allows companies to interoperate between private networks and the public Ethereum mainnet. With Kaleido, companies can set up and maintain their own private blockchain with checkbox simplicity.

SINGLE or MULTI-NETWORK ACCOUNTS

Provision all nodes into a single network to quickly sign up POCs or into separate accounts to create true distributed ownership of the network

PRIVATE TRANSACTIONS

Ability to create nodes with transaction managers that handle private transactions which are sealed on the public blockchain but are known only to certain parties

INTERACTIVE BLOCK EXPLORER

Kaleido empowers users to deep dive with SQL-enabled rich analytics that do beyond a traditional block explorer

DOCS & API

Utilize the interactive API Swagger editor and the series of technical guides and blogs to get started, and continue learning as you build

Learn more at kaleido.io

DECENTRALIZED APPLICATION

Gitcoin



The easiest way to monetize or incentivize work in open source software

Gitcoin is a mission and value-oriented distributed movement aimed to drive change and grow open source by enabling repo maintainers, developers, and financiers to find one another. Gitcoin is a community, not a token. The Gitcoin toolset and community allows you to build skills, find (or give) economic opportunities and hopefully make some lifelong relationships.

HOW GITCOIN WORKS

1.FIND FUNDED GITHUB ISSUES

Whether it's bugs, features, or security issues, Gitcoin's issue explorer is the easiest way to find paid work in open source

2.CLAIM AN ISSUE

Claim the issue on Gitcoin via the Funded Issue Detail Page

3.BUILD SOMETHING GREAT

Coordinate with the Bounty Submitter on Github and build something amazing!

4.SUBMIT YOUR WORK & GET PAID

Payments are Ethereum-based & released automatically after code is accepted by the Bounty Submitter

Learn more at gitcoin.co



WRITTEN BY

JOHN IZAGUIRRE

Community & Ecosystem | ConsenSys DACH

John led developer, enterprise and partner ecosystem development across DACH, connecting builders and business stakeholders to the Ethereum stack. He authored this Developer Tools, Infrastructure and Core Applications booklet to make ConsenSys infrastructure, tools and core products easier to understand and adopt.

Join us.

Help us build a decentralized future.
Find your spot in the mesh.

consensys.net/careers



CONSENSYS