[](https://ida.interchain.io/)

[Interchain Developer Academy](https://ida.interchain.io/)/[Interchain Developer Academy](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)



Search

[Interchain Developer Academy](https://ida.interchain.io/)[Interchain Developer Academy](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

Search



Filters

Interchain Developer Academy

[](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Week 0 - Getting Started](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Getting Started](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Blockchain 101](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Blockchain History](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Public and Managed Blockchains](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Consensus in Distributed Networks](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Cryptography](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Self-Assessment Quiz](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Go Introduction - First Steps](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Go Basics](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Go Interfaces](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Control Structures in Go](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Arrays and Slices in Go](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Standard Packages in Go](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Concurrency in Go](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Good-To-Know Dev Terms](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Docker Introduction](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Week 1 - Introduction to the Interchain](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Introduction to the Interchain](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Blockchain Technology and the Interchain](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[The Interchain Ecosystem](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Getting ATOM and Staking It](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[A Blockchain App Architecture](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Accounts](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Transactions](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Messages](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Modules](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Protobuf](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Multistore and Keepers](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[BaseApp](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Queries](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Events](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Context](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Testing](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Relaying with IBC](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Interchain Security](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Bridges](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Migrations](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Week 1 Quiz](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Week 2 - First Steps](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[First Steps](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Setup Your Work Environment](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Run a Node, API, and CLI](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Ignite CLI](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Exercise - Make a Checkers Blockchain](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Store Object](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Create Custom Messages](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Create and Save a Game Properly](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Add a Way to Make a Move](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Emit Game Information](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Record the Game Winner](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Week 2 Exercise](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Week 3 - Introduction to IBC and CosmJS](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Introduction to IBC and CosmJS](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[What is IBC?](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[IBC/TAO - Connections (OPTIONAL)](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[IBC/TAO - Channels (OPTIONAL)](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[IBC/TAO - Clients (OPTIONAL)](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[IBC Token Transfer](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Interchain Accounts (OPTIONAL)](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[IBC Middleware (OPTIONAL)](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Create a Custom IBC Middleware (OPTIONAL)](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Integrate IBC Middleware Into a Chain (OPTIONAL)](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[IBC Tooling](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[What is CosmJS?](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Your First CosmJS Actions](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Compose Complex Transactions](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Learn to Integrate Keplr](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Create Custom CosmJS Interfaces](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Week 4 - Ignite CLI and IBC Advanced](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Ignite CLI and IBC Advanced](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Keep an Up-To-Date Game Deadline](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Keep Track Of How Many Moves Have Been Played](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Put Your Games in Order](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Auto-Expiring Games](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Let Players Set a Wager](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Handle wager payments](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Integration tests](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Incentivize Players](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Help Find a Correct Move](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Play With Cross-Chain Tokens](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Understand IBC Denoms](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Go Relayer](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Hermes Relayer](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Week 5 - CosmJS Advanced](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[CosmJS Advanced](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Create Custom Objects](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Create Custom Messages](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Get an External GUI](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Integrate CosmJS and Keplr](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Backend Script for Game Indexing](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Week 6 - IBC Deep Dive](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[IBC Deep Dive](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[IBC Application Developer Introduction](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Make a Module IBC-Enabled](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Adding Packet and Acknowledgment Data](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Extend the Checkers Game With a Leaderboard](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Create a Leaderboard Chain](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Week 7 - From Code to MVP to Production and Migrations](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[From Code to MVP to Production and Migrations](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Run in Production](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Prepare the Software to Run](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Prepare a Validator and Keys](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Prepare Where the Node Starts](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Prepare and Connect to Other Nodes](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Configure, Run, and Set Up a Service](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Prepare and Do Migrations](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Simulate Production in Docker](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Tally Player Info After Production](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Add a Leaderboard as a Module](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Migrate the Leaderboard Module After Production](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Simulate a Migration in Docker](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Final Exam](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[What's Next?](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

[Continue Your Interchain Journey](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html)

Docs Version Switcher

On this page

[1990s](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html#_1990s)

[2000s](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html#_2000s)

[2010s](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html#_2010s)

[#Copy link](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html#blockchain-history) **Blockchain History**

To fully appreciate Cosmos, it is helpful to understand the origins of blockchain technology, the advances that have unfolded, and the intractable challenges of other blockchain protocols which Cosmos decisively solves.

Important groundwork was laid in the 1980s and 1990s for what would later be known as blockchain technology. Although the technology itself was not created until 2008, researchers from different fields in computer science and cryptography proposed solutions to many problems regarding security, transparency, and trust. All of them contributed to the development of the first large-scale, successful public blockchain network, Bitcoin.

[#Copy link](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html#_1990s) 1990s

In 1991, two research scientists, Stuart Haber and W. Scott Stornetta, identified a problem: How can it be ensured that digital documents are authentic and changes to them are tracked in an immutable time-stamped manner? In *How to time-stamp a digital document*, they worked on the concept of append-only, cryptographically secured logs. With their work, the foundations of what much later became blockchain technology were laid.

Haber and Stornetta’s work was followed and elaborated on by Ross J. Anderson in 1996 when he described the creation of [*The Eternity Service* (opens new window)↗](https://www.cl.cam.ac.uk/~rja14/Papers/eternity.pdf), a storage medium resistant to denial-of-service (DoS) attacks using redundancy and scattering techniques as well as anonymity mechanisms.

In 1998, [Bruce Schneier (opens new window)↗](https://www.schneier.com/crypto-gram/) and [John Kelsey (opens new window)↗](https://www.nist.gov/people/john-m-kelsey) proposed a computationally cheap way to safeguard sensitive information and allow for computer forensics with secure audit logs using hashing, authentication keys, and encryption keys.



To learn more about Schneier and Kelsey's proposed solution, see [Schneier, B. & Kelsey, J. (1998): *Secure Audit Logs to Support Computer Forensics* (opens new window)↗](https://www.schneier.com/academic/paperfiles/paper-auditlogs.pdf).

Another significant work arose in 1994, when computer scientist Nick Szabo first described the concept of [smart contracts (opens new window)↗](http://www.fon.hum.uva.nl/rob/Courses/InformationInSpeech/CDROM/Literature/LOTwinterschool2006/szabo.best.vwh.net/smart.contracts.html). It is important to recognize that Szabo's intent was to minimize the need for trusted intermediaries. In 1998 he proposed BitGold, a conceptual predecessor to Bitcoin, as he argued for a decentralized digital currency. In both, Proof-of-Work (PoW) is used as a consensus algorithm to solve cryptographic puzzles in a peer-to-peer (P2P) network with Byzantine Fault Tolerance. The solutions are also linked by a "hash chain". Although BitGold was never implemented, many perceive it as being the direct ancestor of Bitcoin.



For more on BitGold, see [Phillip Moskoy's 2018 paper *What Is Bit Gold? The Brainchild of Blockchain Pioneer Nick Szabo* (opens new window)↗](https://coincentral.com/what-is-bit-gold-the-brainchild-of-blockchain-pioneer-nick-szabo/).

As we can see, these intellectual predecessors brought forward elements that are essential to blockchain technology.

[#Copy link](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html#_2000s) 2000s

On October 31, 2008, Satoshi Nakamoto's Bitcoin whitepaper called for a P2P system for a digital currency that would allow online payments to be sent directly from one party to another without going through a financial institution or requiring any other third party involvement. This sounds familiar for a reason: Nick Szabo had already mentioned a currency that would depend minimally on third parties in the 1990s. However, Satoshi’s whitepaper differed significantly - not only because of the name difference between BitGold and Bitcoin. It also proposed a data structure for the blockchain and laid out the decentralized consensus mechanism. Bitcoin became the first large-scale, successful public blockchain network.

****

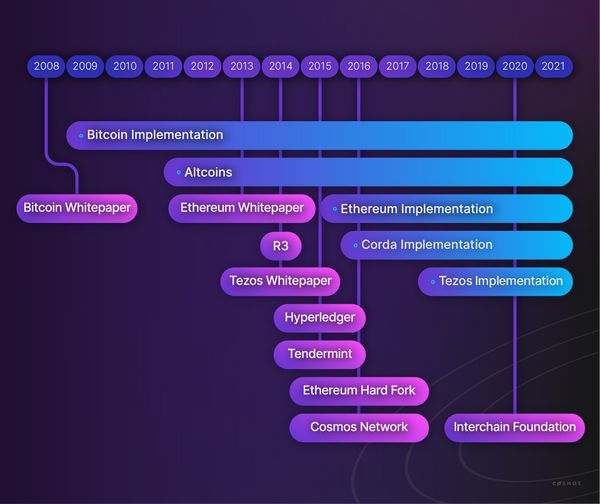
**Who is Satoshi Nakamoto? The disruptive origins of blockchain**

To this day, we do not know who is behind the whitepaper or the first client implementation of Bitcoin: Satoshi Nakamoto was a pseudonym used by the person or group that published the whitepaper. As you might have seen in the news, the identity of Nakomoto has sparked plenty of conspiracy theories as several individuals have claimed to be the creator of Bitcoin. None of these claims have been verified.

What is certain is that the community initially working on the network and the client can be characterized as generally pro-capitalist, anti-regulation, anti-monopoly, and pro-free-trade. Many of those developing and driving the technology have also heralded its potential to reduce corruption and perceived human failures by pushing processes out of human reach.

All this may not seem important, but it is. Blockchain technology was built with disruption in mind. It was envisaged as the antithesis to the central control of banks, governments, and incumbent holders of monopolies. This has an influence on the direction the technology takes and remains a strong influence on its development.

Given its anti-establishment roots, blockchain technology has been seized upon by other groups interested in circumventing government, law enforcement, or regulatory control, as well as by activists persecuted by their governments.



[#Copy link](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html#_2010s) 2010s

As soon as it became clear that the technology presented a very attractive base infrastructure for payments, other groups and organizations adapted the technology for their purposes, or developed new approaches using the same basic principles but adapting them to more traditional use cases.

In 2014, Vitalik Buterin started what is now known as the second wave of blockchain technology by publishing the paper underlying the Ethereum blockchain protocol, [A Next Generation Smart Contract & Decentralised Application Platform (opens new window)↗](https://github.com/ethereum/wiki/wiki/White-Paper). Beyond a distributed ledger, the Ethereum whitepaper proposed the development of a distributed computing platform.

Around the same time, Tendermint began research into alternative methods of achieving distributed consensus. See [Tendermint: Consensus without Mining (opens new window)↗](https://tendermint.com/static/docs/tendermint.pdf).



Have a closer look at the [Ethereum whitepaper (opens new window)↗](https://github.com/ethereum/wiki/wiki/White-Paper) to discover more on the initial concept.

The Ethereum project raised roughly $20 million in one of the most successful crowdfunding campaigns up to that point. The first public network was up and running in 2015. Simultaneously it spawned the first managed blockchain network approach, when the company Eris forked a version of Ethereum and expanded it to implement a layer of permissions which made it easier to deploy custom, access-controlled networks.

Late 2015 saw the establishment of the [Hyperledger Foundation (opens new window)↗](https://www.hyperledger.org/), an industry consortium with a focus on enterprise blockchain technology for managed networks and business applications, and in 2017 the [Ethereum Enterprise Alliance (opens new window)↗](https://entethalliance.org/) was formed as an industry consortium to adapt Ethereum for enterprise use.

This brief background introduces the vibrant community and fast-paced evolution of the space from which Cosmos would emerge.

Today we can see two broad trends in the development and adoption of blockchain technology: public blockchains, and managed/private blockchains. Understanding this distinction will be important to your understanding of Cosmos. Cosmos is applicable to both use-cases and, importantly, enables seamless interoperability that has challenged its predecessors.

Let us start by diving into public blockchains and their most known examples, Bitcoin and Ethereum, and later take a closer look at private/managed blockchains in the next section.



**Books**

* [Swan Melanie: Blockchain (2015): Blueprint for a New Economy (opens new window)↗](https://www.melanieswan.com/publications.html#books)
* [Antonopolous, Andreas (2017): Mastering Bitcoin (opens new window)↗](https://bitcoinbook.info/)

**Further readings**

* [Anderson, Ross J. (1996): The Eternity Service (opens new window)↗](https://www.cl.cam.ac.uk/~rja14/Papers/eternity.pdf)
* [Buterin, Vitalik (2014): A Next-Generation Smart Contract and Decentralized Application Platform - The Ethereum White Paper (opens new window)↗](https://github.com/ethereum/wiki/wiki/White-Paper)
* [Moskov, P. (2018): What Is Bit Gold? The Brainchild of Blockchain Pioneer Nick Szabo (opens new window)↗](https://coincentral.com/what-is-bit-gold-the-brainchild-of-blockchain-pioneer-nick-szabo/)
* [Nakamoto, S. (2008): Bitcoin: A Peer-to-Peer Electronic Cash System (opens new window)↗](https://bitcoin.org/bitcoin.pdf)
* [Schneier, B. & Kelsey, J. (1998): Secure Audit Logs to Support Computer Forensics (opens new window)↗](https://www.schneier.com/academic/paperfiles/paper-auditlogs.pdf)
* [Szabo, N. (1994): Smart Contracts (opens new window)↗](http://www.fon.hum.uva.nl/rob/Courses/InformationInSpeech/CDROM/Literature/LOTwinterschool2006/szabo.best.vwh.net/smart.contracts.html)
* [Tendermint: Consensus without Mining (opens new window)↗](https://tendermint.com/static/docs/tendermint.pdf).

synopsis

To summarize, this section has explored:

* How, in the 1990s, key developments in computational research which occurred laid the groundwork for blockchain technology, including append-only, cryptographically secured logs; storage mediums using redundancy and scattering techniques to resist denial-of-service (DoS) attacks; the implementation of hashing, authentication keys, and encryption keys; and the work of Nick Szabo, who first conceptualized smart contracts and proposed creating a decentralized digital currency with many of the features that were later actualized in Bitcoin.
* How, in the 2000s, the individual or group known as Satoshi Nakamoto published the Bitcoin whitepaper, which proposed a specific data structure for blockchain and laid out its decentralized consensus mechanism, with Bitcoin becoming the first large-scale, successful public blockchain network.
* How, in the 2010s, blockchain's potential was recognized and adapted to a variety of purposes, leading to a second wave of the technology of which Ethereum was at the front, being specifically designed to provide a blockchain-based platform for the creation of independent smart contracts and distributed applications (dApps).
* How two broad trends towards either public blockchains or private/managed blockchains can be not only satisfied but also seamlessly integrated via **Cosmos**, which opens up the potential for interoperability between blockchains which has largely eluded its predecessors.

previous

[](https://ida.interchain.io/ida-course/0-blockchain-basics/1-blockchain.html)

**[Blockchain 101](https://ida.interchain.io/ida-course/0-blockchain-basics/1-blockchain.html)**

up next

**[Public and Managed Blockchains](https://ida.interchain.io/ida-course/0-blockchain-basics/3-managed.html)**

[[](https://ida.interchain.io/ida-course/0-blockchain-basics/3-managed.html)](https://ida.interchain.io/ida-course/0-blockchain-basics/3-managed.html)

Rate this Page

icon smile

icon meh

icon frown

Would you like to add a message?

Submit

Thank you for your Feedback!

On this page

[1990s](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html#_1990s)

[2000s](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html#_2000s)

[2010s](https://ida.interchain.io/ida-course/0-blockchain-basics/2-public.html#_2010s)

#### **Get Cosmos updates**

Unsubscribe at any time. [Privacy Policy↗](https://v1.cosmos.network/privacy)

     Next

Documentation

[Cosmos SDK](https://docs.cosmos.network/)[Cosmos Hub](https://hub.cosmos.network/)[CometBFT](https://docs.cometbft.com/)[IBC Protocol](https://ibc.cosmos.network/)

Community

[Interchain blog](https://blog.cosmos.network/)[Forum](https://forum.cosmos.network/)[Discord](https://discord.gg/cosmosnetwork)

Contributing

[Source code on GitHub](https://github.com/cosmos/sdk-tutorials)

[](https://ida.interchain.io/)

[Interchain Developer Academy](https://ida.interchain.io/)

**[](https://blog.cosmos.network/)[](https://twitter.com/cosmos)[](https://discord.gg/cosmosnetwork)[](https://www.linkedin.com/company/interchain-foundation/about/)[](https://reddit.com/r/cosmosnetwork)[](https://t.me/cosmosproject)[](https://www.youtube.com/c/CosmosProject)**



Dark mode

† This website is maintained by the Interchain Foundation (ICF). The contents and opinions of this website are those of the ICF. The ICF provides links to cryptocurrency exchanges as a service to the public. The ICF does not warrant that the information provided by these websites is correct, complete, and up-to-date. The ICF is not responsible for their content and expressly rejects any liability for damages of any kind resulting from the use, reference to, or reliance on any information contained within these websites.

Cosmos is a registered trademark of the [Interchain Foundation.](https://interchain.io/)[Privacy](https://v1.cosmos.network/privacy)