



# Cosmos Workshop

NFT Auction

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# Overview

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- Tendermint & Cosmos-SDK Intro
- Tutorial Walkthrough



# Intro

# What is Tendermint?

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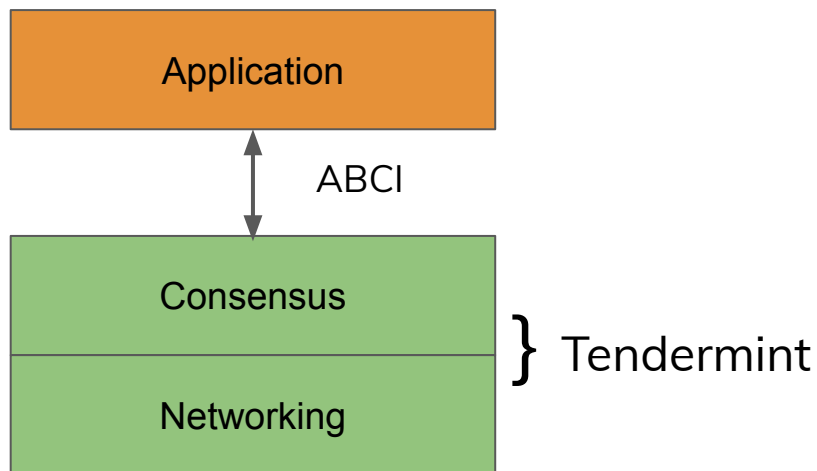
- A BFT consensus algorithm
- A weight based protocol
  - Can be used for PoA, PoS or PoW (with minor changes)
- Scalable
- Energy efficient
- Instant finality
- Support state machines in any language



# Your State Machine

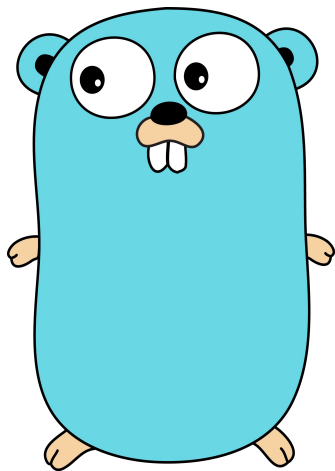
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- Build an application in any language
- Build your own incentive and economic design
- Create your own rules



# ABCI Ecosystem

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python™



Haskell



elixir



# What is the Cosmos-SDK?

*Ruby on Rails for Blockchains - batteries included*



## Core Module: **Tendermint**

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- Mature BFT Consensus & Networking Protocol
- Formally Proven
- Instant Confirmation







# Core Modules

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- Auth - account based model
- Bank - transfers between accounts
- Distribution - handles distribution of fees and rewards
- Gov - onchain governance, community pool
- Slashing - slashing for misbehaving validators
- Staking - delegated Proof of stake
- Supply - keep track of the total supply of tokens in the app
- IBC - Inter blockchain Communication

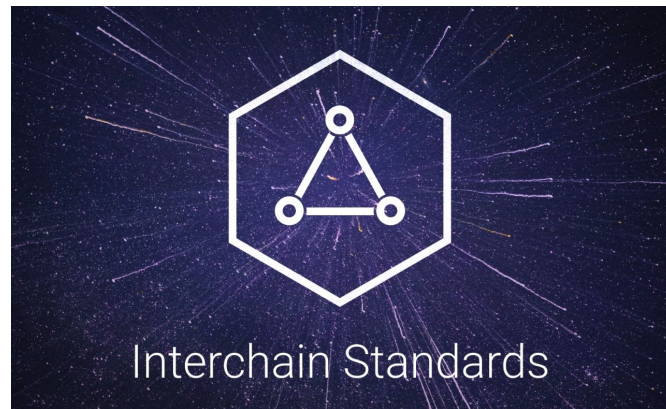
*60+ modules within the community..*

# Interoperability (IBC)

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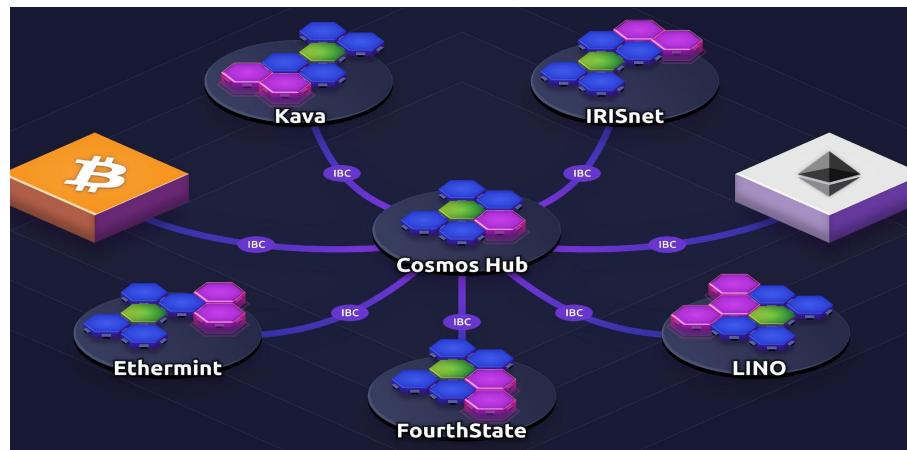
- IBC Spec is working towards v1
- Implementation is nearing completion

IBC will be baked into the cosmos-sdk and will enable communication with cosmos based chains in the near term, substrate based chains in the medium term and other enterprise/public based chains.



# What does this mean for you?

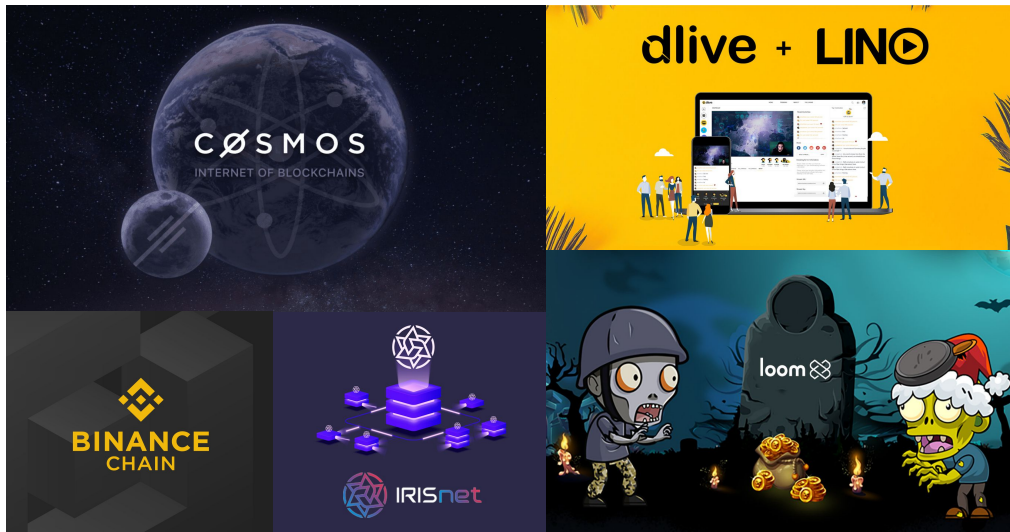
- You can build a blockchain in less than a month (depending on the use case)
- You get a proven and production grade consensus and networking out of the box (Tendermint Core)
- Interoperability is built into the system, you can communicate to independant and siloed chains



# Ecosystem

## Tendermint:

- Kadena
- Crypto.com
- Oasis labs
- Nym
- Hyperledger
- Burrow
- BigChainDB
- Cosmos
- Many more..



## Cosmos-SDK:

- Binance
- Aragon
- Kava
- e-Money
- lov
- Playlist
- Regen
- Sentinel
- Terra
- Trustory
- Shapeshift
- Many more.



# Tutorial walkthrough

Now we will move over to an IDE