Polkadot.

An Introduction to Polkadot for DeFi

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Polkadot Architecture:

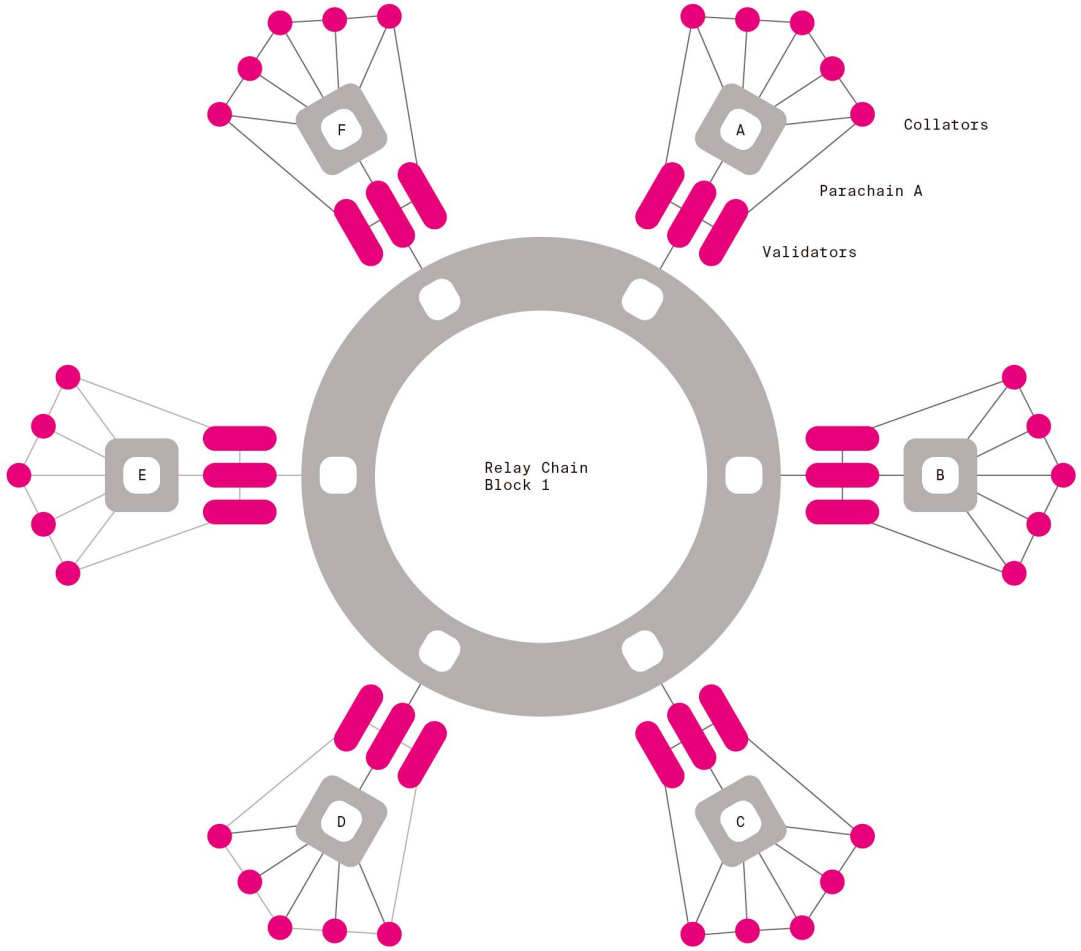
Polkadot.

RELAY-CHAIN

The connector chain of Polkadot that provides strong economic security and an interoperability protocol.

PARACHAINS / PARATHREADS

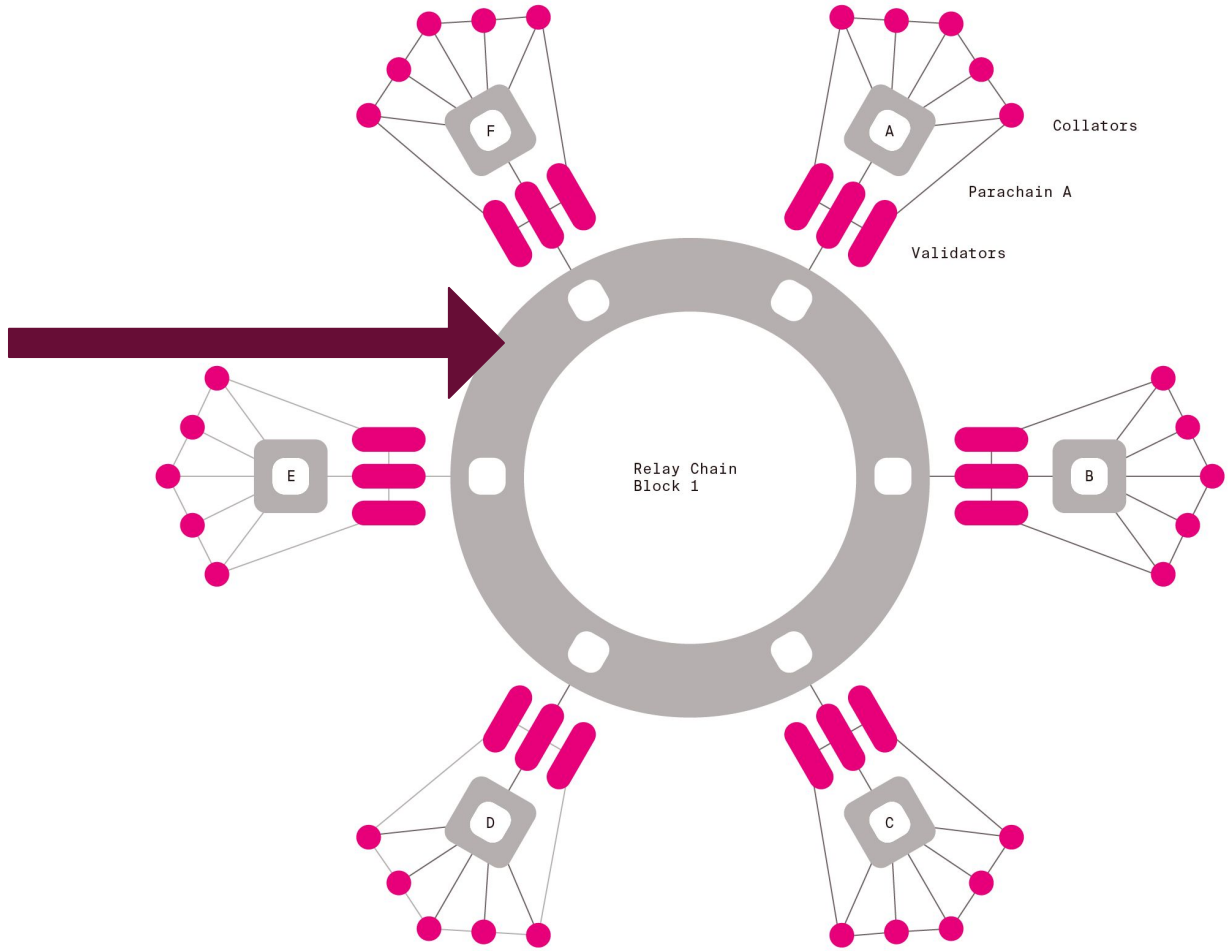
Third-party chains that connect to Polkadot for interoperability, scalability, and pooled security.



Relay Chain

The **relay chain** is a relatively simple chain which focuses on coordinating parachains (shards) where most of the actual user-facing work takes place.

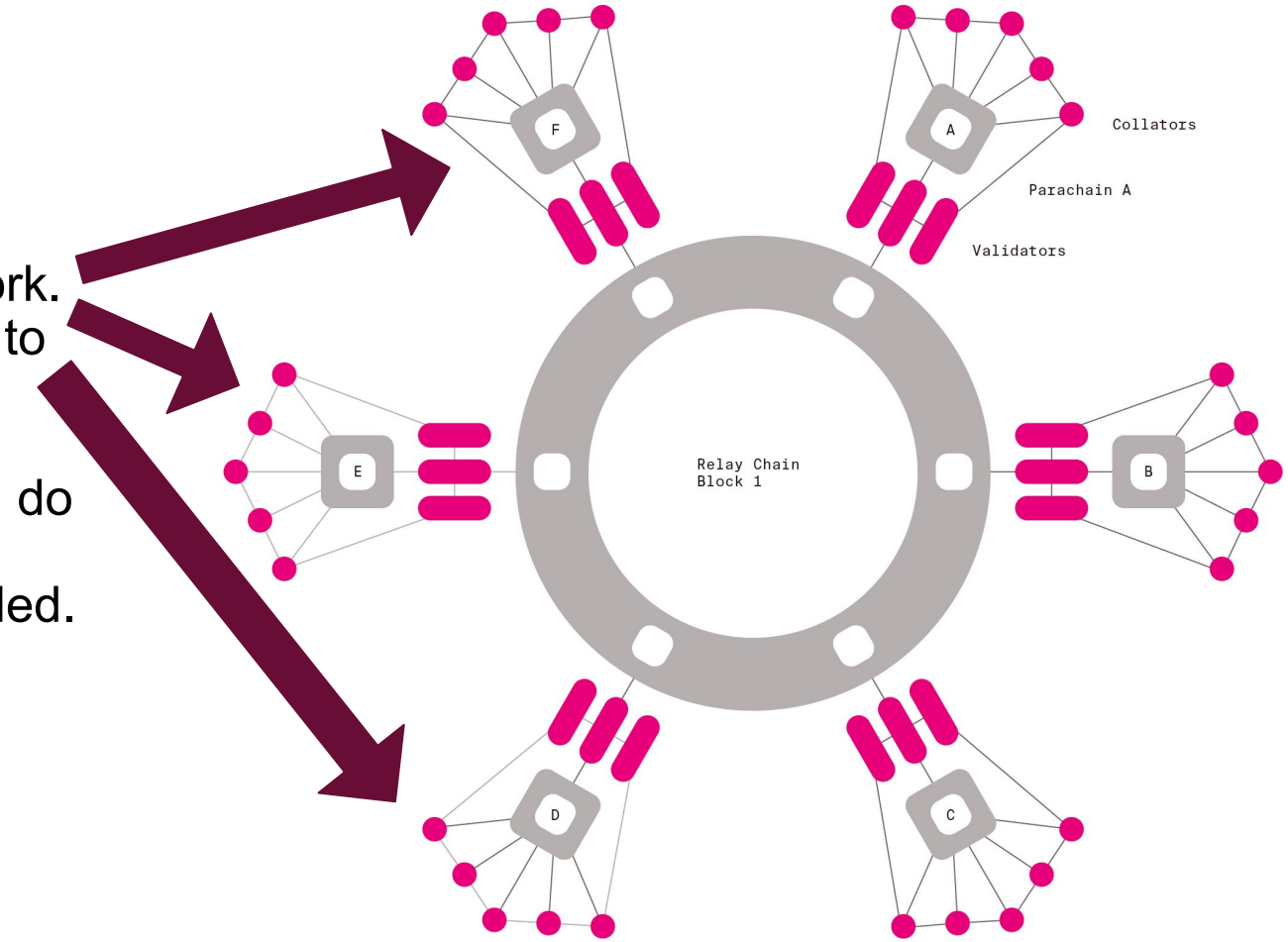
It’s a nominated proof-of-stake chain with hybrid consensus (block production with a separate finalization gadget).



Parachains / Parathreads

Parachains are parallelizable blockchains (“parachains”) that make Polkadot a network. You may have heard this concept referred to as a “shard” in other contexts.

Parathreads are merely parachains which do not stay connected to the relay chain, but rather bid on a per-block basis to be included.

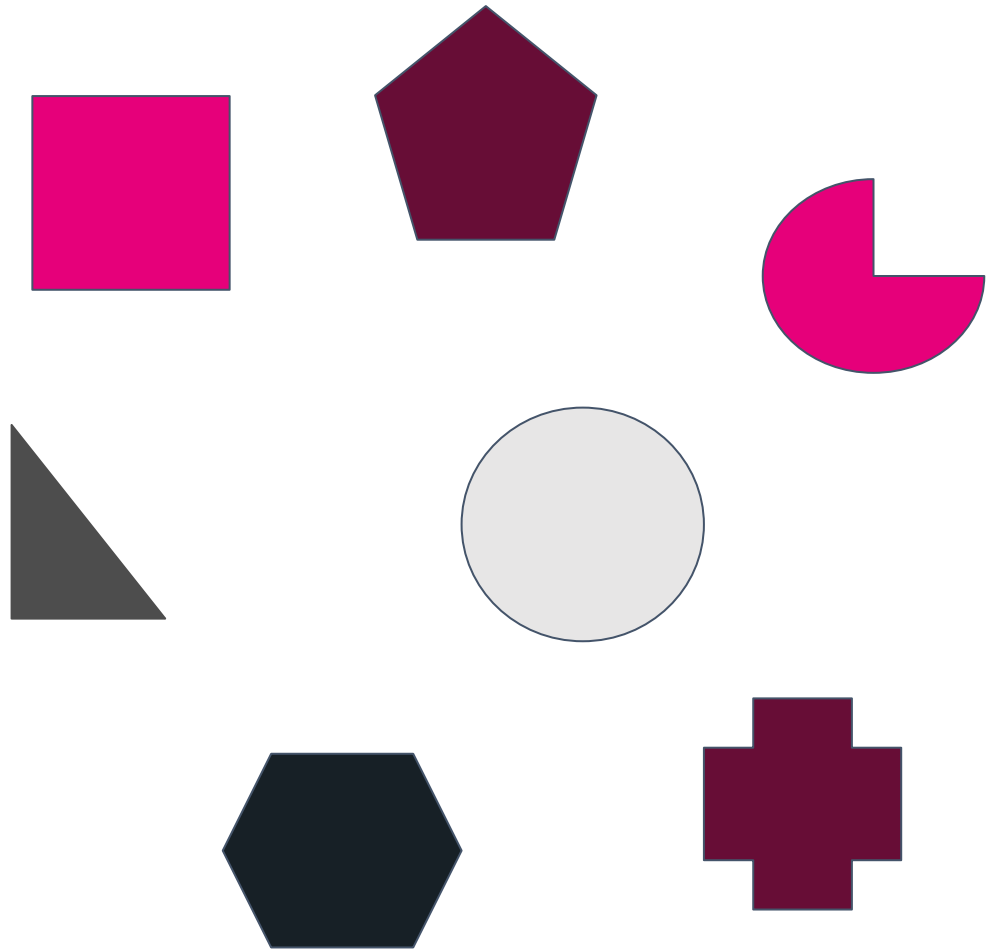


So what makes it different?

Parachains are heterogenous - each parachain can have a unique implementation with its own runtime logic.

Because of this, these parachains can also act as bridges to external blockchains such as Ethereum, Bitcoin, or ZCash.

Parachains can communicate with each other - and can actually determine how another chain will interpret those messages ahead of time.



Polkadot.

Heterogenous Shards?
What Do You Mean?

Polkadot.

First let me quickly explain *pallets*...

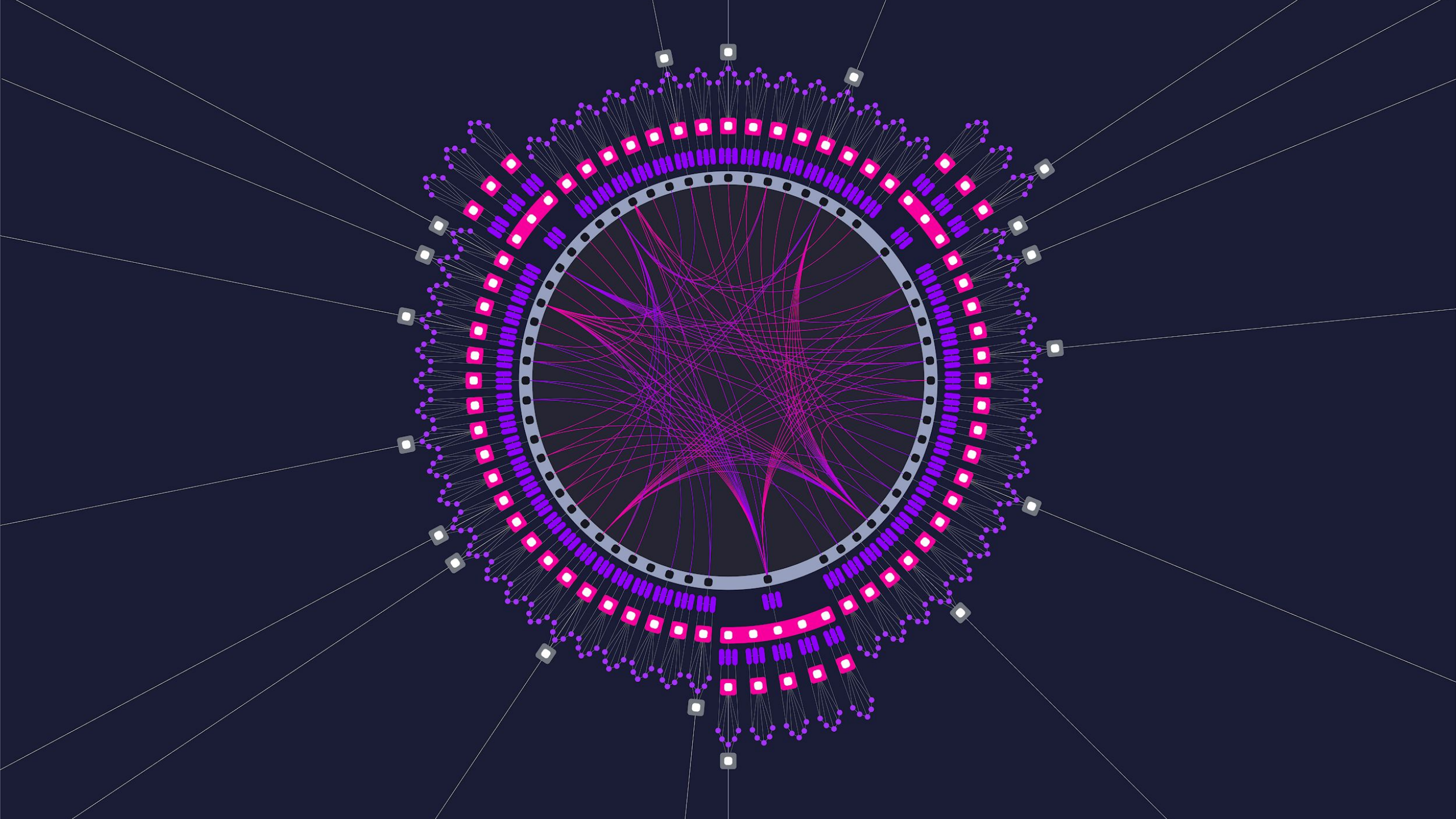
Polkadot. **AvocadoSupplyChain**

- **Aura** - Proof of Authority consensus mechanism
- **sudo** - Allows “superuser” powers by authorities
- **Identity** - Pallet to provide identities to people; can force registrars to identify them before access is granted
- Custom-built supply chain management pallet

Polkadot. **CypherpunkHangout**

- **Proof of Stake** pallets (staking, consensus, etc.)
- **Society** - Allows groups to form and membership attested to on-chain
- **Democracy** - Provides a governance system for people to vote on upgrades to the chain
- **evm** - Implementation of the Ethereum Virtual Machine for on-chain smart contracts
- Custom-built privacy pallets

Polkadot.



Polkadot.

How Do I Build?


WA

Polkadot.

Forkless and future-proof.


substrate

Polkadot.

Why Write My Own Runtime, Instead of Just a Smart Contract?

Polkadot.

Control.

Polkadot.

Flexibility.

Polkadot.

Scalability.

Polkadot.

You Don’t Have To!
You Can Build On Chains Others Have Built.

Polkadot.

Why Is Polkadot Suited For DeFi, Specifically?

Polkadot.

Cross-chain communications, not just for token ownership, but arbitrary data.

Polkadot.

Provable finality on the relay chain as a built-in feature.

Polkadot.

Can use any language that compiles to Wasm, or write your own.

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