DeFi Network

Nodes vs Validators

NODES
(Observers & Verifiers)

- Download the blockchain
- Verify all transactions locally
- Do **NOT** produce blocks
- Do **NOT** earn block rewards
- Can run on:
  - Home computers
  - Laptops
  - Small VPS
- Anyone can run a node
- Strengthens decentraliation
- No stake required

Node	Validator
✓	✓
✗	✗
✗	✗
✓	✓

VALIDATORS
(Block Producers & Consensus)

- Run a **full node + validator** software
- Propose and sign blocks
- Participate in consensus
- Earn **block rewards + fees**
- Must:
  - Stake DeFi tokens
  - Stay online
  - Follow protocol rules
- Limited number (set by network)
- Higher responsibility & risk

Node	Validator
✓	✓
✓	✓
✗	✗
✓	✓

⚖ Key Difference (At a Glance)

- **Nodes** = Watchers
- Both are essential.

🧠 Mental Model (One Line)

- **Nodes** = Watchers **Validator** = Judges

One checks the system. The system. The other runs it.

DeFi Network

The Role of Nodes

Download & Verify the Blockchain

- Every full node downloads a copy of the entire blockchain.
- Validates every block and transaction.

Decentralize the Network

- Each node operates independently.
- More **nodes = greater network** resilience.
- Reduces reliance on any single server or entity.

Broadcast Data to Other Nodes

- Nodes spread and relay **new transactions** and blocks across the network.
- Helps all nodes stay in sync and up-to-date.

Validate Consensus Rules

- Checks that **blocks follow protocol** rules.
- Rejects **invalid** or double-spent transactions.
- Prevents manipulation or fraud.

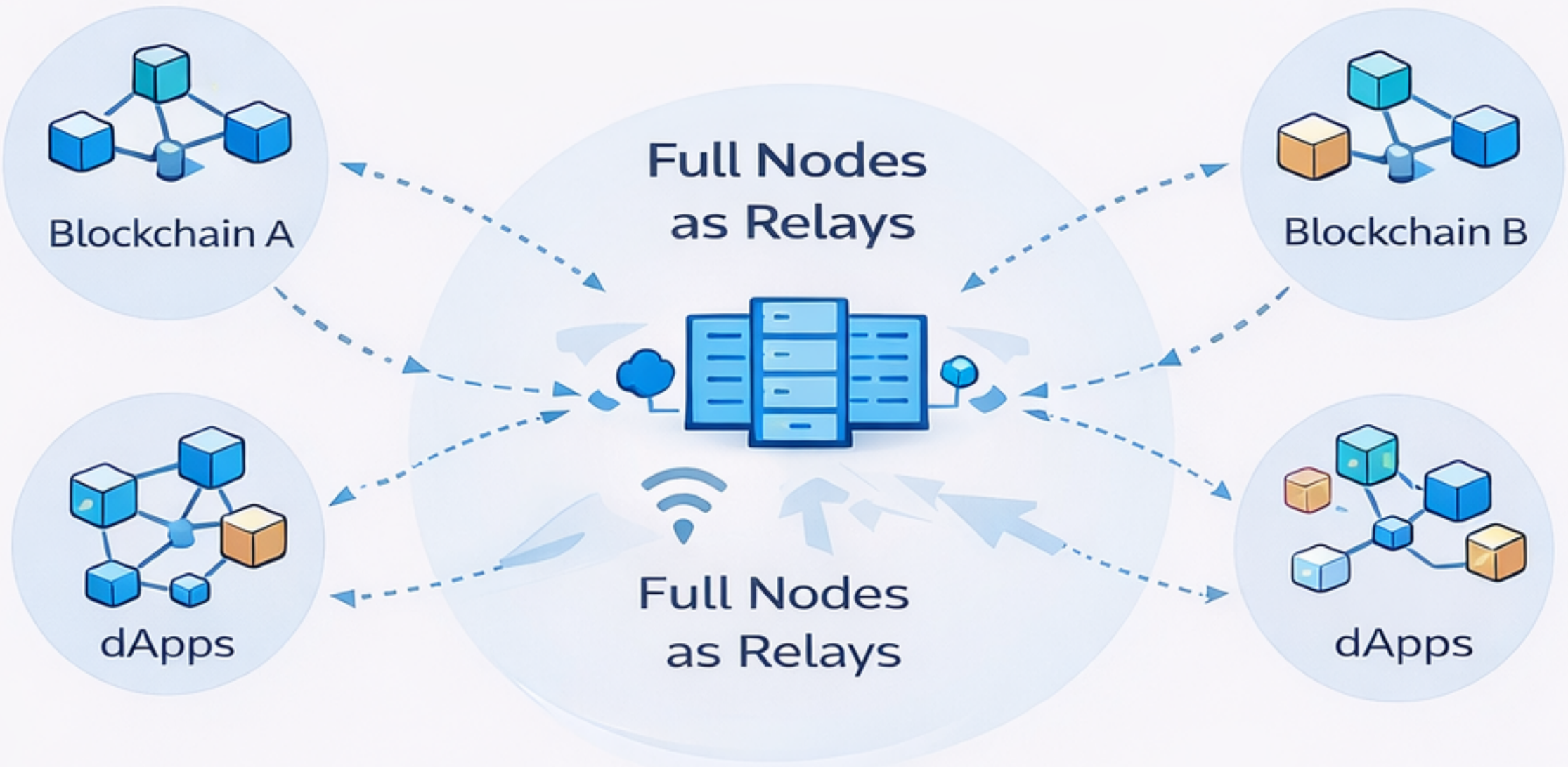
Preserve the Blockchain History

- Stores the **full history** of the blockchain.
- Any node can retrieve and verify chain data.
- Keeps the ledger transparent and immutable.

Nodes make the blockchain transparent,
resilient, and tamper-evident.

DeFi Network

How Nodes Enable Cross-Chain Communication



Cross-Chain Data Transfer

- Nodes enable the transfer of data **between** different blockchains, ensuring interoperability and cross-chain functionality.

Relay Information Between dApps

- Nodes facilitate communication **between** decentralized applications **across** networks, sharing state, data, and messages.

Maintain Network Coherence

- Nodes maintain accurate, up-to-date **information** across the network, preventing fragmentation and ensuring inter-network integrity.

Nodes are the glue that binds blockchain ecosystems together.

Cross-Chain

Cross-Apps

Information Relay

DeFi Network

How to Earn with Nodes

Provide Relayer Services

- Relay cross-chain transactions between blockchains
- Earn fees for successful relay of data.

Offer Data Services

- Provide chain data to dApps & platforms
- Charge for real-time data feeds & historical data.

Support Indexers & APIs

- Help store and index blockchain data.
- Receive a share of network query fees.

Help Maintain Network Health

- Submit evidence of malicious actors.
- Contribute to monitoring oracles & aalerts.

Nodes can earn passive income by securing, supporting, and optimizing the DeFi ecosystem.

Cross-Chain

Data Services

Indexing

Network Support

Nodes can earn passive income by securing, supporting, and optimizing the **DeFi ecosystem.**