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CRYPTO · BEGINNER · LESSON 5 OF 15

One Token, Many Networks: The Major Blockchains

Why there are so many blockchains, what each major network is known for, and why the same USDT can live on several of them at once

10 min read 8 quiz questions with answer key

CRYPTO · BEGINNER · LESSON 5 OF 15

One Token, Many Networks: The Major Blockchains

IN ONE SENTENCE

Each major blockchain makes different trade-offs between speed, cost and security, and popular tokens such as USDT exist as separate versions on several of these networks at the same time.

Why are there so many blockchains?

If Bitcoin and Ethereum already work, why do dozens of other blockchains exist? Because every blockchain has to balance three goals that pull against each other: being **secure**, being **decentralized**, meaning run by many independent participants, and being **fast and cheap**.

Getting all three at once is hard. A network run by thousands of ordinary computers around the world is very hard to attack, but it can only process a limited number of transactions. A network run by a smaller group of powerful machines can be much faster and cheaper, but it relies on fewer participants. Each blockchain picks its own balance, and the Blockchain course looks at this trade-off, often called the blockchain trilemma, in more depth.

For a user, this has practical effects: the network you choose decides how long a transfer takes, how much it costs, and which apps and exchanges you can use.

The major networks at a glance

Thousands of blockchains exist, but most activity happens on a handful:

- **Bitcoin:** the original, focused on being secure, simple money. New blocks arrive about every 10 minutes.
- **Ethereum:** the main home of smart contracts, DeFi and tokens. Fees rise when the network is busy.
- **BNB Chain:** launched in 2020 and closely linked to the Binance exchange. Fast, with low fees.
- **Solana:** launched in 2020 and built for speed, with blocks in well under a second and fees of a fraction of a cent. Popular for payments, trading and memecoins.

- **Tron:** launched in 2018 and widely used for sending USDT, especially across borders, because transfers are fast and cheap.
- **Layer 2 networks:** networks such as Arbitrum and Base that run on top of Ethereum. More on these below.

Network	Native coin	Launched	New block	Fees
Bitcoin	BTC	2009	About 10 minutes	Vary with demand
Ethereum	ETH	2015	12 seconds	Low to high, rise when busy
Tron	TRX	2018	About 3 seconds	Low
BNB Chain	BNB	2020	Under a second	Low, a few cents
Solana	SOL	2020	Under a second	Very low, a fraction of a cent
Arbitrum, Base	ETH	2021, 2023	Under a second	Very low

Fees in the table are a rough guide. They change with network activity and with the price of each network's coin.

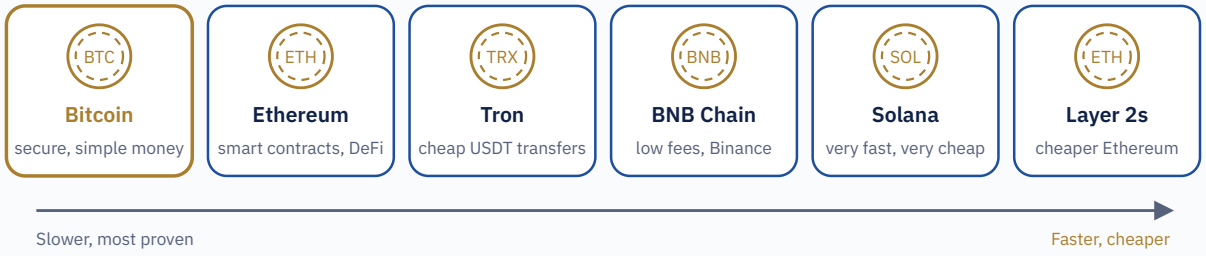


Figure 1. The major networks and what each is known for. Faster, cheaper networks usually rely on fewer, more powerful participants.

Layer 2: networks built on top of Ethereum

Ethereum is secure but can only handle a limited number of transactions, so fees climb when demand is high. **Layer 2** networks offer a way around this. They process transactions on their own, much faster and more cheaply, then bundle them together and post a compressed record back to Ethereum, which is called **Layer 1**.

Because their results are recorded on Ethereum, Layer 2s borrow much of its security while charging users far less. Most of them use ETH to pay fees, and their addresses look exactly like Ethereum addresses. Popular examples are **Arbitrum**, launched in 2021, and **Base**, built by the Coinbase exchange and opened to the public in August 2023.

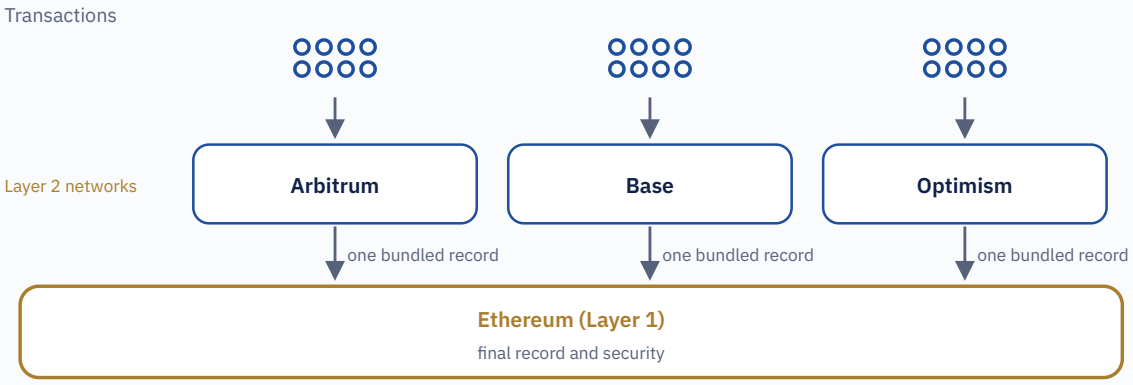


Figure 2. Layer 2 networks process transactions quickly and cheaply, then post one bundled record to Ethereum, which secures the result.

ANALOGY: THE SHUTTLE BUS AND THE HIGHWAY

Imagine a busy highway with an expensive toll for every car. Instead of each person driving alone, many passengers board a shuttle bus, and the bus pays one toll for all of them. A Layer 2 is the shuttle: it gathers hundreds of transactions and uses Ethereum, the highway, only once for the whole group.

One token, many networks

Lesson 4 showed that a token is created by a smart contract on a blockchain. Large issuers often create their token on several blockchains at once. Tether issues USDT on Tron, Ethereum, BNB Chain, Solana and others. Each version is a separate token contract, with its own address, living on its own network.

On 1 October 2026, according to DefiLlama data, about half of all USDT was on Tron and about 40% on Ethereum, with the rest spread across BNB Chain, Solana and smaller networks.

The versions have names that tell you which network they live on:

- **ERC-20 USDT** lives on Ethereum.
- **TRC-20 USDT** lives on Tron.
- **BEP-20 USDT** lives on BNB Chain.
- **SPL USDT** lives on Solana.

All of them are worth one dollar and are backed by the same issuer, but they cannot move directly between networks. USDT sent on Tron arrives only at a Tron address. This is why exchanges ask you to choose a network every time you deposit or withdraw.

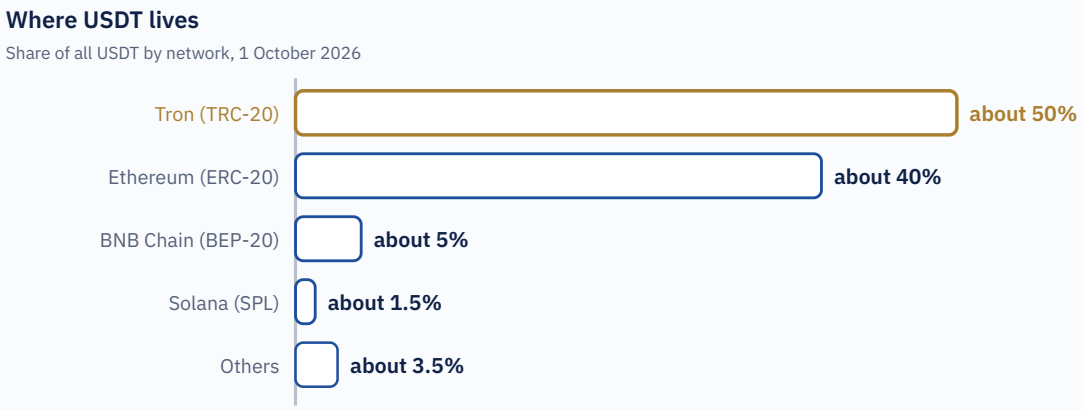


Figure 3. USDT exists as a separate token on each network. About half of it is on Tron and about 40% on Ethereum (DefiLlama data, 1 October 2026).

Different networks, different addresses

Each network has its own address format, and learning to recognize them is a useful safety habit:

- **Bitcoin** addresses start with **bc1**, **1** or **3**.
- **Ethereum** addresses start with **0x** followed by 40 characters.
- **Tron** addresses start with a capital **T**.
- **Solana** addresses are long strings of letters and numbers without a fixed prefix.

There is one important trap. Ethereum, BNB Chain, Arbitrum, Base and many others all use the same **0x** format, because they run the same kind of software, called the EVM. The exact same address can exist on all of them. So an address that looks correct does not prove you picked the right network. Sending BEP-20 USDT to an address on a network the receiver does not use can mean a long recovery process or a permanent loss. Lesson 10 shows how to avoid this step by step.

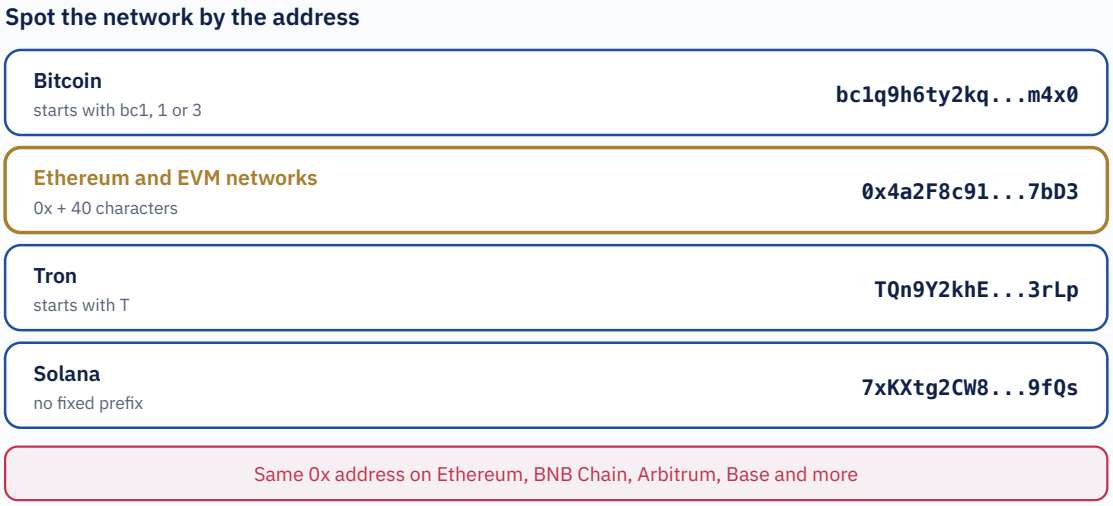


Figure 4. Address formats differ by network. The addresses shown are shortened examples. Many networks share the 0x format, so always check the network as well.

Moving between networks: bridges

Because tokens cannot travel directly from one chain to another, people use **bridges**. A typical bridge locks your tokens in a smart contract on the first network, then creates an equal amount of a matching token on the second network. Going back reverses the process: the copy is destroyed and the original is released.

Bridges are useful, but the locked tokens pile up in one place, which makes them a favourite target for hackers. The Ronin bridge theft you met in Blockchain Lesson 13 is one of the largest examples.

For most beginners there is a simpler route: a centralized exchange. You can deposit USDT on one network, for example Ethereum, and withdraw it on another, for example Tron. The exchange handles the switch internally, and you only pay the withdrawal fee.



Figure 5. A bridge locks tokens on one network and creates matching tokens on another. The locked tokens make bridges a common target for attacks.

Why this matters for traders

- **Network choice is a cost decision.** Withdrawing the same USDT can cost very different amounts depending on the network. Check the fee for each option on your exchange before you confirm.
- **Activity drives demand for each network's coin.** When a network gets busy, for example during a memecoin wave on Solana, more people need SOL to pay fees and to trade, which can support its price. Watching where activity moves helps explain which coins are leading.
- **Exchanges pause networks.** During upgrades, congestion or security problems, exchanges sometimes suspend deposits or withdrawals on one network. Funds can be delayed exactly when you want to move them, so do not leave transfers to the last minute.
- **Speed matters when moving funds to trade.** A transfer on Bitcoin needs several confirmations and can take an hour or more. A transfer of USDT on Tron or Solana usually arrives within minutes.

Key terms

Layer 1	A base blockchain that processes and secures its own transactions, such as Bitcoin, Ethereum or Solana.
Layer 2	A network built on top of a Layer 1 that processes transactions more cheaply and posts the results back to it, such as Arbitrum or Base.
EVM	The Ethereum Virtual Machine: the software that runs smart contracts on Ethereum and on many compatible networks that share its 0x address format.
TRC-20, BEP-20, SPL	Token standards on Tron, BNB Chain and Solana, the counterparts of ERC-20 on Ethereum.
Bridge	A service that moves value between blockchains, usually by locking tokens on one chain and creating matching tokens on another.
Blockchain trilemma	The difficulty of making a blockchain secure, decentralized and fast at the same time.

Key takeaways

1. Different blockchains balance security, decentralization and speed differently, which is why so many exist.
2. The networks beginners meet most are Bitcoin, Ethereum, Tron, BNB Chain, Solana and Ethereum Layer 2s such as Arbitrum and Base.
3. Layer 2s process transactions cheaply and record the results on Ethereum, usually paying fees in ETH.
4. USDT exists as separate tokens on several networks: TRC-20 on Tron, ERC-20 on Ethereum, BEP-20 on BNB Chain and more. About half of all USDT is on Tron.
5. Many networks share the same 0x address format, so a valid-looking address does not prove the network is right.
6. Bridges move tokens between chains but have been hacked often. A centralized exchange is the simplest way for beginners to switch networks.

Test yourself

Circle one answer for each question. The answer key with explanations is on the next page. You can also take this quiz online at markettalks.info and see your score instantly.

1. Why do so many different blockchains exist?

- A Each country requires its own blockchain
- B Each one balances security, decentralization and speed differently
- C Bitcoin stopped working in 2020
- D Blockchains can only hold one token each

2. Which network is most widely used for sending USDT and held about half of all USDT in October 2026?

- A Bitcoin
- B Solana
- C Tron
- D Arbitrum

3. What does a Layer 2 network do?

A Replaces Ethereum completely

B Processes transactions cheaply and posts a record back to Ethereum

C Mines bitcoin faster

D Stores private keys for users

4. What is TRC-20 USDT?

A A fake version of USDT

B USDT that lives on the Tron network

C USDT that lives on Ethereum

D A newer version that replaced ERC-20 USDT

5. Which address most likely belongs to the Tron network?

A bc1q9h7...

B 0x4a2F...

C TQn9Y2...

D A long string with no prefix

6. Why is a correct-looking 0x address not enough to be safe?

A 0x addresses are always fake

B Many networks such as Ethereum, BNB Chain and Base share the same 0x format

C 0x addresses only work on Bitcoin

D 0x addresses expire after a day

7. How does a typical bridge move tokens from one chain to another?

A It sends the original tokens across the internet

B It locks tokens on the first chain and creates matching tokens on the second

C It converts the tokens into cash

D It asks the issuer to print new tokens

8. What is often the simplest way for a beginner to move USDT from Ethereum to Tron?

A. Send it directly to a Tron address
B. Deposit it to an exchange on Ethereum and withdraw it on Tron
C. Ask Tether to convert it
D. Wait for the networks to merge

Answer key

1 B

Each one balances security, decentralization and speed differently

No blockchain gets all three perfectly. Each design chooses different trade-offs, which suits different uses.

2 C

Tron

Tron's fast, low-cost transfers made it the largest home of USDT, with Ethereum second.

3 B

Processes transactions cheaply and posts a record back to Ethereum

Layer 2s bundle many transactions and record the results on Ethereum, gaining much of its security at a lower cost.

4 B

USDT that lives on the Tron network

TRC-20 is Tron's token standard. ERC-20 USDT lives on Ethereum, BEP-20 USDT on BNB Chain and SPL USDT on Solana.

5 C

TQn9Y2...

Tron addresses start with a capital T. Bitcoin addresses often start with bc1, and Ethereum-style addresses start with 0x.

6 B

Many networks such as Ethereum, BNB Chain and Base share the same 0x format

The same 0x address can exist on many EVM networks. You also need to choose the network the receiver actually uses.

7 B

It locks tokens on the first chain and creates matching tokens on the second

The original stays locked while a matching copy is used on the other chain. That pool of locked tokens is why bridges attract hackers.

8 B

Deposit it to an exchange on Ethereum and withdraw it on Tron

A centralized exchange handles the switch internally. You deposit on one network and choose another when you withdraw.

SOURCES

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Up next: Lesson 6 Stablecoins: How They Hold Their Price, and When They Don't

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