Blockchain Facts: Block Time Comparison

Below is a comparison of block time for various competitive blockchain networks, ranked from fastest to slowest as of <u>February 25, 2025</u>:

Blockchain Network	Block Time (Second)
1. **AtlantisChain** (*Layer 0 Public Infrastructure*)	0.043
2. **Solana**	0.408
3. **ICP**	0.480
4. **Sei**	0.480
5. **opBNB** (*BNB Chain Layer 2*)	1.000
6. **NEAR Protocol**	1.110
7. **Base** (*Ethereum Layer 2*)	2.000
8. **Optimism** (*Ethereum Layer 2*)	2.000
9. **Polygon** (*Ethereum Layer 2*)	2.300
10. **Tron**	3.000
11. **BNB Chain**	3.000
12. **Taraxa**	3.720
13. **Pi Network**	5.000
14. **TON**	5.000
15. **Stellar**	5.780
16. **Arbitrum** (*Ethereum Layer 2*)	0.250 ~ 7.500
17. **Ethereum**	12.00
18. **Bitcoin**	600.0 (*=10 minutes*)

Key Insights:

1) *AtlantisChain (0.043s) is the fastest and most advanced blockchain in terms of block time. With a maximum processing capacity of 1,550,000 transactions per second (TPS), it sets a new benchmark for scalability and efficiency, making it ideal for real commercial applications and public services.*

2) *Solana (0.408s) and ICP (0.480s) follow closely behind, maintaining high speeds optimized for fast transactions.*

3) *Ethereum Layer 2 solutions (Optimism, Arbitrum, Base, and Polygon) significantly reduce block times compared to Ethereum's 12-second mainnet block time, improving scalability and cost-efficiency.*

4) *Bitcoin remains the slowest blockchain, with a 10-minute block time, prioritizing security and decentralization over speed.*