

Public vs. Private Blockchains - Scenario Analysis

Current state of zero-knowledge proofs

Fixed cost per transaction	8.7832
Variable cost per transaction	5.0610
	\$13.8442

Sensitivity test (formula) Public blockchains (ZKPs) are cheaper

Future state of zero-knowledge proofs

Fixed cost per transaction	\$8.7832
Variable cost per transaction*	\$0.4167
	\$9.1999

Sensitivity test (formula) Public blockchains (ZKPs) are cheaper

Private blockchain costs

Fixed cost per transaction	\$171.4804
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* Assume 12 proofs computed per hour

Table

Tx per day	25	100	1,000	1,912	10,000	300,000
Annual transactions	9,125	36,500	365,000	697,880	3,650,000	109,500,000
Private blockchain	\$34.2962	\$8.5742	\$0.8576	\$0.4486	\$0.0859	\$0.0030
ZKP - current	\$7.4752	\$5.6646	\$5.1214	\$5.0926	\$5.0671	\$5.0613
ZKP - future	\$2.8309	\$1.0203	\$0.4771	\$0.4483	\$0.4228	\$0.4169

