

# Blockchain Comparison

18.8.2017

Category	NXT	Ardor	NEM	Ethereum	Bitcoin
Launched	2013	Testnet	2015	2015	2009
Programming Language	Java	Java	Java	C++ / Go	C++
Open APIs	✓	✓	✓	✓	✗
Block time	1 Min	1 Min	1 Min	15 Sec	10 Min
Tokens	1 Billion	1 Billion	9 Billion		21 Million
Consensus	POS	POS	POI*	POW	POW
Market Cap [M\$]	105	136	2291	30700	66628
<b>Basic Building Blocks</b>					
Generate Token	✓	✓	✓	✓	✓
Transfer of Value	✓	✓	✓	✓	✓
Text Messages	✓	✓	✓	3 <sup>rd</sup> party	✗
Encrypted Messages	✓	✓	✓	3 <sup>rd</sup> party	✗
Encrypted Messages Shared with 3 <sup>rd</sup> party	✓	✓	✗	✗	✗
Prunable Data	✓	✓	✗	✗	✗
Data Storage	40K	40K	✗	?	80 bytes
Register Alias	✓	✓	✓	3 <sup>rd</sup> party	✗
Account Properties	✓	✓	✗	✗	✗
Multi Signature Transactions	✓	✓	✓	3 <sup>rd</sup> party	✓
Phasing	✓	✓+logic	✗	3 <sup>rd</sup> party	✗
SPV Wallet	✗	✗	✗	?	✓
Light Client	✓	✓	✓	?	✗
<b>Smart Contracts</b>					
Programmable	✗	✗	✗	✓	✗
Assets	✓	✓	✓	ERC20 tokens	✗**
Decentralized Trading	✓	✓	✗	✗	✗**
Restricted Tokens	✓	✓	✗	3 <sup>rd</sup> party***	✗
Voting	✓	✓	✗	3 <sup>rd</sup> party***	✗
Marketplace	✓	✓	✗	3 <sup>rd</sup> party***	✗
Anonymity	Coin Shuffling	Coin Shuffling	✗	✗	Coin Mixers
<b>Advanced Architecture</b>					
Parent/Child architecture	✗	✓	✗	✗****	✗
Separation of security token from operational token	✗	✓	✗	✗	✗
Transaction Pruning	✗	✓	✗	✗	✗

\* Since NEM is not fully open source the exact inner working of POI is unknown

\*\* Assets and trading on top of Bitcoin are implemented using other protocols like OMNI and Counter Party

\*\*\* Ethereum smart contracts can, in theory, be implemented to mimic this unique NXT and Ardor function

\*\*\*\* plasma.io paper was released recently, perhaps in response to Ardor, but actual implementation is years away