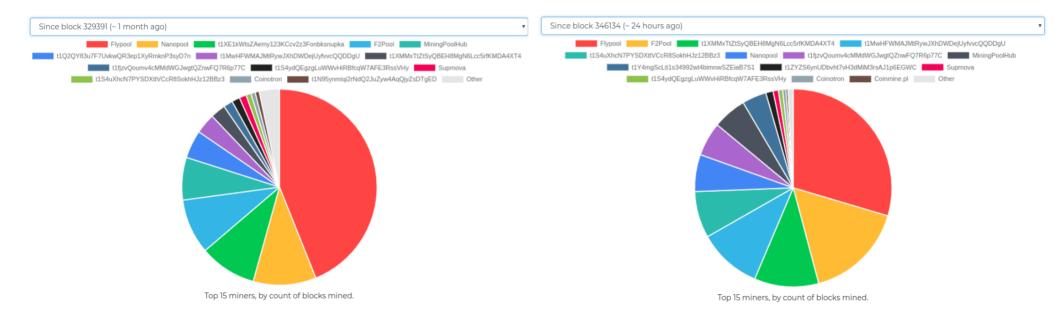
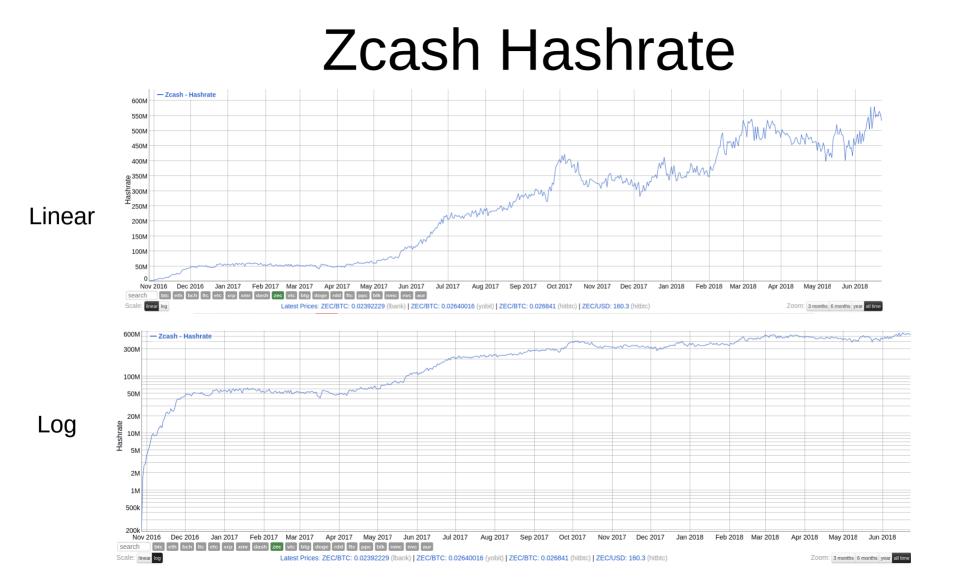
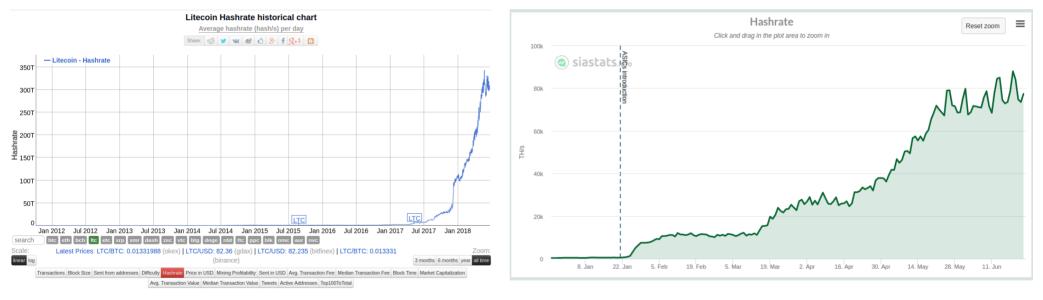
Mining pool





Impact of ASICs on hashrate



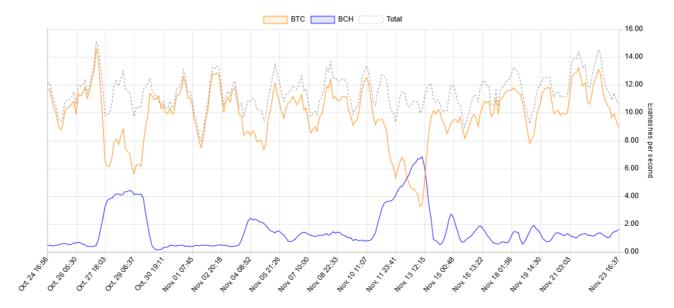
Antminer L3+ miner announced April 2017, Shipped in July 2017

Antminer A3 shipped in January 2018, Halong and Innosilicon in Mar/Apr 2018.

Myth of security

- BTC lost >50% sha256 hashpower
- Economics, Market outlook and Politics matter

Absolute hashrate in exahashes per second (12h averages)



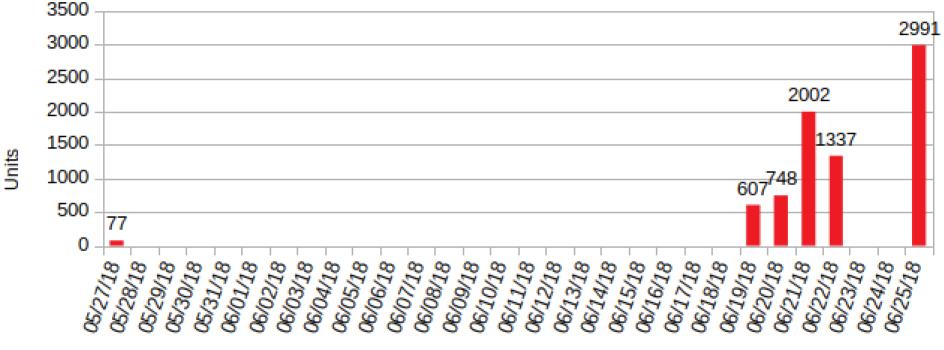
Equihash (200,9) mining hardware

Model	Hashrate (Sol/s)	Power (Watts)	Efficiency (Sol/watt)	ASIC advantage	Price (USD)	Cost \$/sol/s
Nvidia GTX 1080 ti	720	200	3.6000	1.0000	699	0.9708
Antminer Z9 mini	10000	300	33.3333	9.2593	850	0.0850
Innosilicon Zmaster	50000	620	80.6452	22.4014	9,999	0.2000
ASICMiner 40K	40000	1140	35.0877	9.7466	15,550	0.3888
Antminer Z9	40000 (TBC)	TBC	TBC	TBC	TBC	TBC

Prices as of 26 June 2018

Antminer Z9 Mini

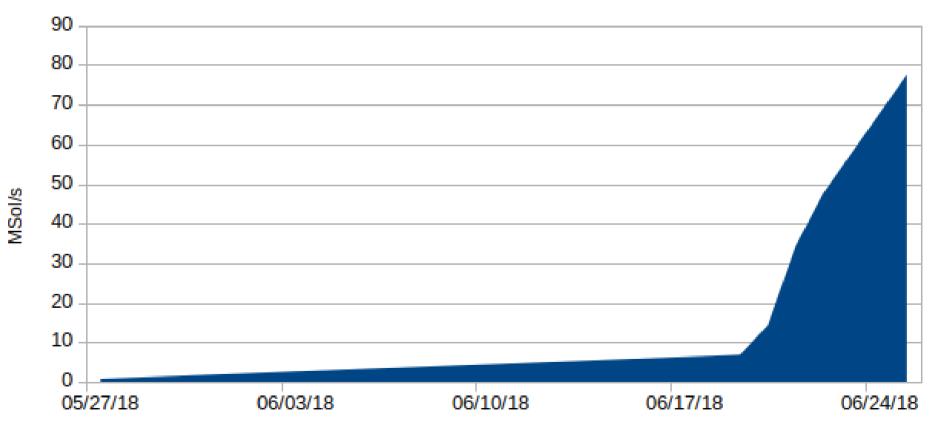
Public Shipments



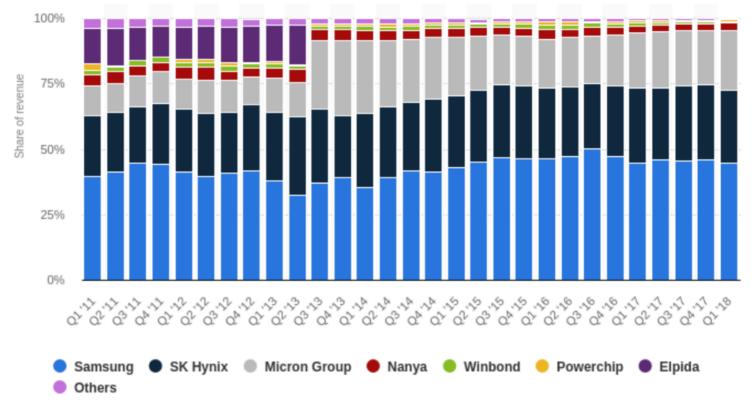
Shipment Date

Antminer Z9 mini

Cumulative Hashpower of Public Shipments



Open Standards, Commoditization & Economies of scale



https://www.statista.com/statistics/271726/global-market-share-held-by-dram-chip-vendors-since-2010/

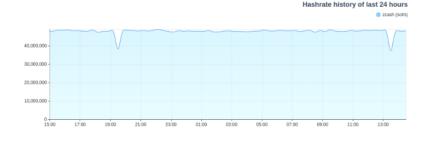
Miners have a right to privacy

- Curiosity
 - Who owns the address with X coins or Y hashpower?
- Zcash Foundation
 - Formal request asking manufacturers to make voluntary disclosure
 - Sales, private mining, etc.
 - Commercially sensitive!
 - Not enforceable...

- Customer database
 - Bitmain hacked, fake 'S11' scam
- Regulatory
 - Bitcoin mining banned in Plattsburgh (New York state) over zoning and power usage
- Venezuela
 - Importing of mining equipment regulated
 - Miners must be licensed

A miner with ~10% hashpower







- On 24 June, network hash rate ~550Msol/s
- A miner on F2Pool using ~1000 workers to achieve ~50Msol/s
- Each worker is achieving ~50k sol/s (the performance of the Innosilicon Zmaster)
- Payouts started 15 June

Value of daily distribution

# ≑	Watch 🌲	\$	Name 🝦	Price USD [♦]	24hr Change ⊜ vs USD	Y2050 Marketcap ⊜ (implied)	Current Marketcap	24hr Vol ∳	Supply % ∳ Issued	New Issuance (24hr, ▼ USD)
1	☆	₿	Bitcoin (BTC)	\$6,222	+1.08%	\$130,560,830,428	\$106,496,445,984	\$5,517,970,000	81.57%	\$13,299,680
2	☆	٠	Ethereum (ETH)	\$457.23	+1.20%	\$67,201,501,338	\$45,863,669,682	\$4,208,350,000	68.25%	\$7,900,560
3	☆	(8)	Bitcoin Cash (BCH)	\$747.80	+0.51%	\$15,691,315,473	\$12,865,034,544	\$430,437,000	81.99%	\$1,448,854
4	☆	2	ZCash (ZEC)	\$175.22	+6.10%	\$3,645,615,650	\$739,354,861	\$49,616,700	20.28%	\$1,259,427
5	☆	0	Litecoin (LTC)	\$81.56	+0.90%	\$6,841,526,770	\$4,660,386,511	\$428,377,000	68.12%	\$1,174,462
6	☆	Ð	Dash (DASH)	\$240.60	+0.61%	\$4,547,298,004	\$1,961,874,221	\$128,546,000	43.14%	\$441,914
7	☆		Monero (XMR)	\$126.02	-0.05%	\$2,833,291,744	\$2,037,407,130	\$36,032,300	71.91%	\$405,316
8	☆	23	Decred (DCR)	\$73.84	+3.85%	\$1,550,731,748	\$527,672,883	\$8,008,740	34.03%	\$395,784
9	☆	۲	Ethereum Classic (ETC)	\$15.62	+5.58%	\$3,592,823,028	\$1,602,253,561	\$229,351,000	44.60%	\$382,761
10	☆	D	Digibyte (DGB)	\$0.021	+2.17%	\$444,734,785	\$221,126,733	\$2,077,930	49.72%	\$94,702

PoW alts – Hybrid, PoS, Masternodes

naster	rnodes.online	Upcoming MNs	Trending N	Monitoring	FAQ					Theme -
MI				Mas		Masternodes online: n volume: \$68,043,52	2 / 11,601.81 E	BTC , Marketo		20 / 469,802 BTC
	-		ton		RYPTOCURREN	CY WALLET				
	- L	TIEX	COL		ERCE PAYMENT BRIDGE LISTING					
						A	SK FOR S	PECIAL	DEALS	
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Stats (laintenance (19) Search:		W atter		D			
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Stats ((334) ICO (8) 0 • entries		Search:			•••• Masternode.buzz	- The latest Ma	2 3	ews, analysis & in-	7 Next
Stats ((334) ICO (8) 0 • entries Coin / detail	S [¢	iearch: Price 🗍	-5.08 %	Volume 🔻	Masternode.buzz Prev Marketcap \$	- The latest Ma ous 1 ROI 🔶	2 3 Nodes \Rightarrow	ews, analysis & in- 4 5 6 # required	7 Next Mn worth \$ \$230,503
Stats (how 50	(334) ICO (8) • entries Coin / detail Dash (DASH)	S [¢	search: Price ≑ \$230.5030) -5.08 % 3 -9.78 %	Volume 🗸 \$58,751,100	Masternode.buzz Prev Marketcap ♦ \$1,878,915,804	- The latest Ma bus 1 ROI \$ 7.09%	2 3 Nodes ♦ 4,644	4 5 6 # required ♥ 1,000	7 Next Mn worth ∳ \$230,503 \$708
Stats (now 50	(334) ICO (8) • entries Coin / detail Dash (DASH) SmartCash (SMA	S [¢	search: Price ♦ \$230.5030 \$0.0708	-5.08 % 3 -9.78 % 5 -11.37 %	Volume \$58,751,100 \$3,059,160	Masternode.buzz Prev Marketcap ♦ \$1,878,915,804 \$74,439,67	- The latest Ma ous _1 ROI ∲ 7.09% 49.07%	2 3 Nodes ♦ 4,644 15,197	4 5 6 # required 1,000	Mn worth \$ \$230,503 \$708 \$17,635 \$
Stats (how 50 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	(334) ICO (8) • entries Coin / detail Dash (DASH) SmartCash (SMA PIVX (PIVX)	S [¢	search: Price \$ \$230.5030 \$0.0708 \$1.7635	-5.08 % -9.78 % -11.37 % -10.65 %	Volume \$58,751,100 \$3,059,160 \$689,581	Masternode.buzz Prev Marketcap ♦ \$1,878,915,804 \$74,439,67 \$99,753,64	- The latest Ma ous 1 ROI \$ 7.09% 49.07% 6.78%	2 3 Nodes ♦ 4,644 15,197 1,950	4 5 6 # required 1,000 10,000	7 Next Mn worth ♦ \$230,503 \$706 \$17,635 \$15,483
Stats (how 50	(334) ICO (8) • entries Coin / detail Dash (DASH) SmartCash (SMA PIVX (PIVX) Zcoin (XZC)	S [¢	earch: Price ♦ \$230.5030 \$0.0708 \$1.7635 \$15.4825	-5.08 % 3 -9.78 % 5 -11.37 % 9 -10.65 %	Volume \$58,751,100 \$3,059,160 \$689,581 \$679,823	■ Masternode.buzz Prev Marketcap ♦ \$1,878,915,804 \$74,439,67 \$99,753,64 \$78,009,89	2005 1 ROI ≑ 7.09% 49.07% 6.78% 23.65%	2 3 Nodes 4,644 15,197 1,950 3,172	4 5 6 # required 1,000 10,000 1,000	7 Next Mn worth \$ \$230,503 \$708 \$17,635 \$ \$15,483 \$11,721
Stats (show 50	(334) ICO (8) 0 • entries Coin / detail Dash (DASH) SmartCash (SMA PIVX (PIVX) Zcoin (XZC) PHORE (PHR)	S [¢	Search: Price \$ \$230.5030 \$0.0708 \$1.7635 \$115.4825 \$1.1721	-5.08 % -9.78 % -11.37 % -10.65 % -4.86 % -11.02 %	Volume \$58,751,100 \$3,059,160 \$689,581 \$679,823 \$461,073	Masternode.buzz Prev Marketcap ♦ \$1,878,915,804 \$74,439,67 \$99,753,64 \$78,009,89 \$15,920,20	- The latest Ma dus 1 ROI ∲ 7.09% 49.07% 6.78% 23.65% 38.00%	2 3 Nodes ♦ 4,644 15,197 1,950 3,172 572	4 5 6 # required 1,000 10,000 1,000 10,000	7 Next Mn worth \$ \$230,503 \$706 \$17,635 \$17,635 \$11,731 \$11,721 \$117,044