

Bitcoin mining – big miners take all



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Speculators, known as miners, use powerful computers to solve complex software problems and verify transactions to unlock new bitcoins. They're finding that the enterprise isn't as profitable as it once was.

Drawn by the virtual currency's jump in value last year, digital prospectors have turned the mining industry into an arms race as they buy expensive computing equipment and gobble up electricity. While that worked well as long as bitcoin's value kept rising, smaller players are now being crowded out by bigger competition, high utility bills and declining prices.

"If you mine at the moment, you have to be very lucky to get anything," said Mehmet Vatansever, who bought \$16,000 worth of mining computers in February to chase after new bitcoins. "It's a very difficult business."

Mining, a nod to the excavation of minerals and metal ore, is entirely digital and part of bitcoin's design, so that the money self-regulates supply and prevents out-of-control inflation. The mining process gets increasingly complicated as more bitcoins are created, driving demand for computing power.

Bitcoins, which jumped to more than \$1,200 last year from \$12, have fallen below \$400 apiece this week. China's tighter controls on alternative currencies, the implosion of the Mt. Gox exchange and a U. S. Internal Revenue Service ruling that bitcoins should be taxed as a property have all weighed on the virtual currency.

Used Equipment

While he has been able to create new bitcoins, Vatansever soon discovered that his equipment was on track to earn less than his monthly utility bill of \$480. After selling his computers on EBay Inc. in April, Vatansever estimates that he lost a total of about \$6, 000 on his mining adventure.

In the past week, miners made \$14. 9 million in revenue, compared with a weekly average of \$25. 2 million in December, according to Blockchain. info, an bitcoin-data aggregator. The figures represent the number of bitcoins mined plus transaction fees, multiplied by the dollar-based market price.

EBay now features more than 1, 600 listings for mining computers, many of them used.

“ The mining market has evolved from being mostly isolated ventures to more organized entrepreneurial ventures that are still racing to get an edge with increasingly fast equipment and lower electricity costs,” Gil Luria, an analyst at Wedbush Securities Inc., said in an interview. “ At this point, the opportunity for individual miners is very small.”

Big Miners

While individuals give up prospecting, at least two other larger mining companies, KnCMiner and Cloud Hashing, are still generating profits.

By scaling up operations, they’ve been able to save costs on cooling and power, making their computers more efficient and cost-effective. KnCMiner also sells mining computers to other miners.

KnCMiner, based in Stockholm, operates about 7, 000 machines. While the mining company's electric bill in March came to \$450, 000, the computers mined 21, 000 bitcoins, according to co-founder Sam Cole.

Cloud Hashing, which lets people buy computing capacity in its data center and share in profits, mines about \$230, 000 to \$260, 000 worth of bitcoins a day, according to Chief Executive Officer Emmanuel Abiodun.

“ We are profitable whether we sell contracts or not -- through mining,” Abiodun said in an interview. “ Our business model can handle volatility in pricing.”

Sales Shift

Mining-equipment suppliers are feeling the cool-down firsthand. CoinTerra Inc., a manufacturer of the powerful computers used to crunch numbers for new bitcoins, has seen new sales shrink by 30 percent in the past three weeks from the preceding period, according to CEO Ravi Iyengar.

Mining-equipment suppliers are also detecting early signs of a shift to new virtual currencies. Approximately 250 KnCMiner customers switched their orders from \$10, 000 computers to similarly priced alternative-currency mining machines in the past three weeks, according to Cole.

Because they are newer, designed differently and currently mined by fewer people, currencies such as Litecoin can be more profitable, according to CoinWarz, which tracks mining activity.

“ The new rush right now is Litecoin,” Colin Lusk, a network engineer in Portland, Oregon, said in an interview.

While he once mined only bitcoins, Lusk now uses five of his eight machines to produce Litecoins and other virtual currencies. Created in 2011, Litecoin is similar in design to bitcoin yet requires less computing power. A \$3, 500 computer can produce \$25 worth of Litecoins a day for \$3 in electricity, while producing \$20 worth of bitcoins would cost \$17, Lusk said.

Math Problem

Andrew Korb, another miner, said buying bitcoins outright is easier than participating in the mining arms race. While Korb and fellow investors have spent 900 bitcoins on mining equipment since last year, they have only generated 77 units of the virtual currency, he said.

“ People do the math,” said CoinTerra’s Iyengar. “ If the price goes down significantly, people realize they may be better off buying bitcoins directly from an exchange rather than buying machines.”