

# Blockchain and Crypto Currencies – Broadband Taskforce

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## Blockchain Granny

**Rural Washington's Bitcoin boom**  
"In Wenatchee, Wash., a Bitcoin invasion is underway," said Alison Sider in *The Wall Street Journal*. Home to hydroelectric dams that harness the power of the Columbia River, the small town of 34,000 boasts "some of the cheapest power in the U.S." That's prompted an influx of Bitcoin mining operations, which require "vast amounts of electricity to run" the thousands of computers needed to mine the digital currency. After last year's 1,300 percent



Blockchain will  
unlock value of  
**\$176B**  
by 2025.

Will you own the  
gold mine?

Or be  
undermined?



## Key Issues

1. What is blockchain and what is its disruptive
2. What is cryptocurrency and why is it important?
3. Industries are exploring blockchain and why?

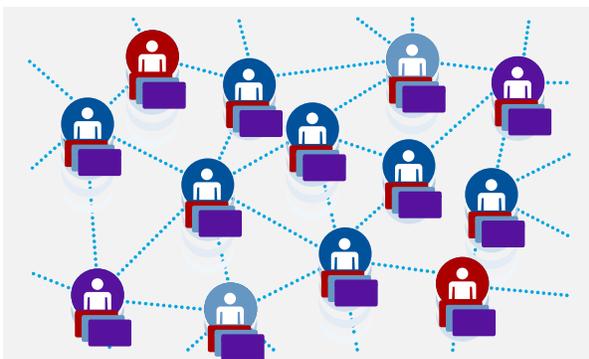
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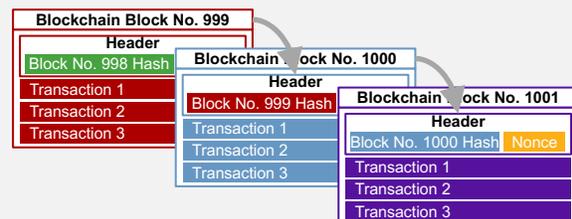
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## Understand the Only Successful Blockchain: Bitcoin



Decentralized Ledger



Encrypted and Interlinked

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## These Features Make Blockchain Disruptive



**Disintermediation**

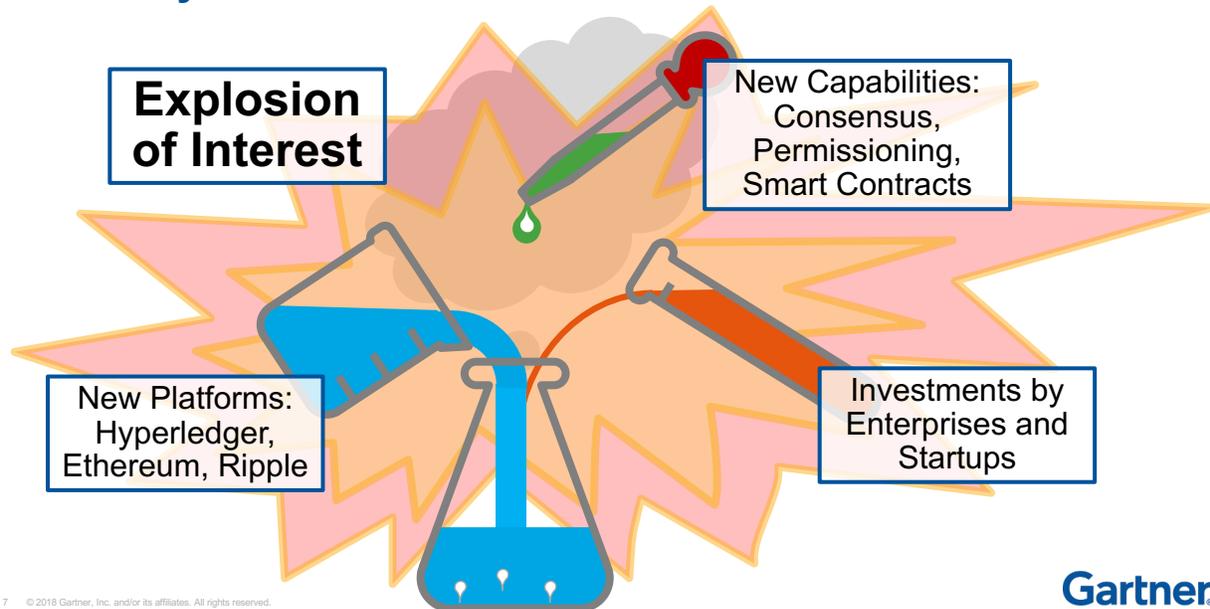


**Immutability**

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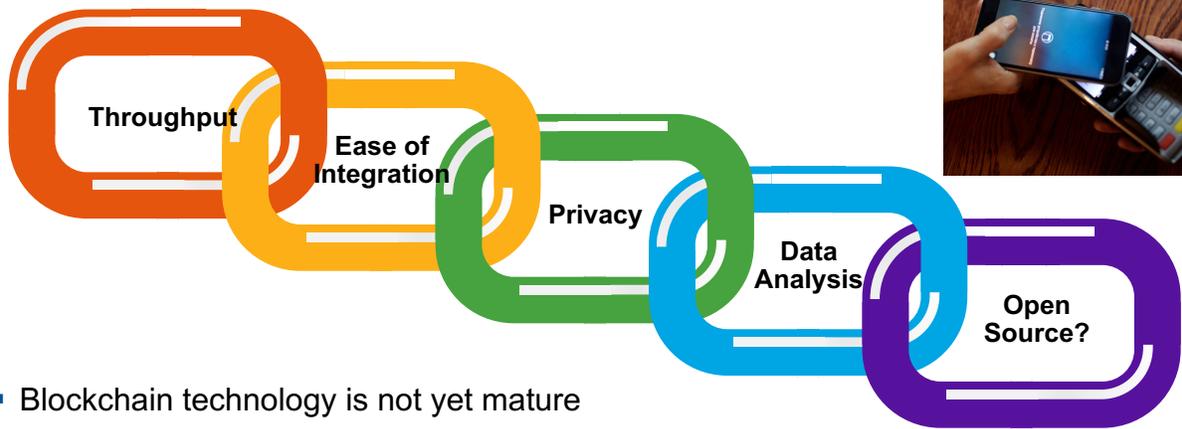
## Move Beyond Bitcoin: The Next Generation of Blockchain



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## Stay Grounded: See the Weak Links Beyond the Hype



- Blockchain technology is not yet mature
- The eventual market leader has not yet emerged

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## Cryptocurrency



**Digital currency that uses cryptography for security, generally anonymous – not issued by any central banking authority**

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## Cryptocurrency

Transactions transact directly without third party

No processing fees

No bank or government control

Transactions are computationally impractical to reverse (fraud protection)

Difficult and expensive to hack – 10 minutes = half a billion USD



**Digital currency that uses cryptography for security, generally anonymous – not issued by any central banking authority**

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## Cryptocurrency

Bitcoin mining

Selling products directly online

Buy Bitcoins outright at Bitcoin exchange markets



### 3 Ways to Get Bitcoins

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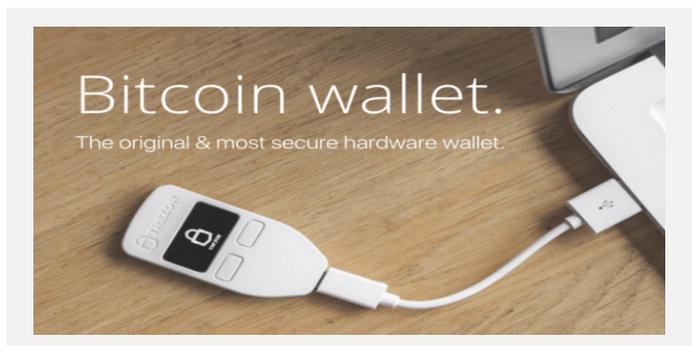
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## Cryptocurrency

Stored in a digital wallet, electronic signal is added, transaction is verified

Bitcoin users have a 34 character address

Transaction is added to log of each Bitcoin user across the globe



**Introduced in 2008 by pseudonymous developer "Satoshi Nakamoto"**

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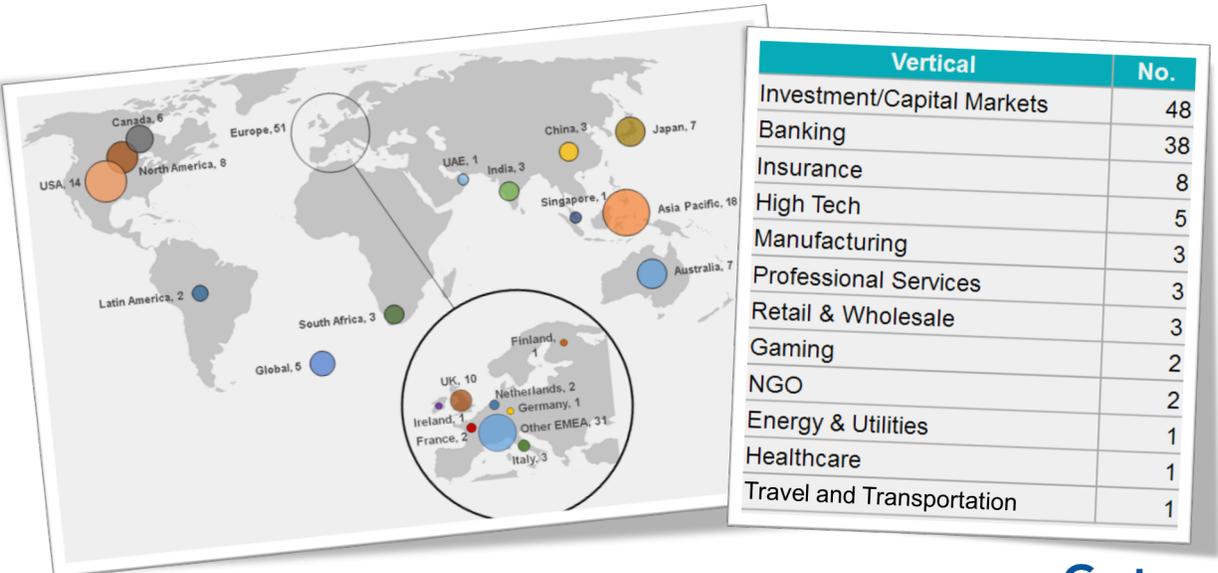
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## Globally, Every Vertical Is Testing Blockchain

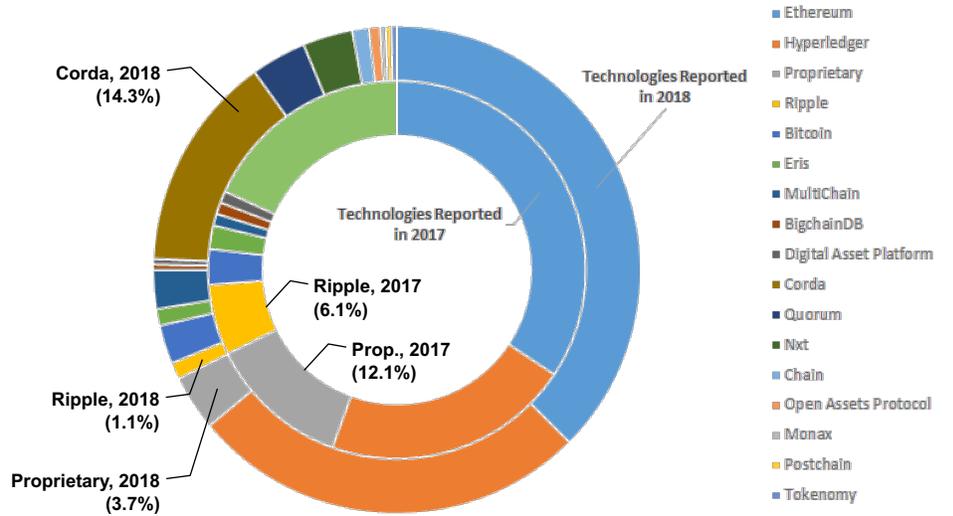


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## ... Shifts in Smaller Platforms Since 2017

Corda use grows significantly, while Ripple and proprietary solutions decline



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**Blockchain Disruptor**

New businesses that rely on a blockchain foundation. Business model may not be new.

1



Prediction Market



Content



E-Commerce



Digital Asset Market

New markets based on digital assets formed from nondigital ones (physical and virtual).

2



NYIAX

Advertising Contracts



The Royal Mint

Digital Gold



Carbon Credits



Efficiency Play

Efficiency improvements in transactions, interactions and tracking provenance of assets.

3



Supply Chain



MAERSK LINE

Container Shipment



Clearing and Settlement



Record Keeper

Records management by one entity, for self or for a community.

4



REPUBLIC OF ESTONIA  
E-RESIDENCY

Digital Identity



Shareholder Lists



Land Titles



Government

Affordable Access to Financial Technology and Social Benefits

5

1.1 billion people worldwide live without an officially recognized identity

Immediate FOI request results

Tracking of government expenditures

Paying taxes and registering land titles

Arizona – smart contracts and electronic signatures

Delaware – transfer securities and communicate with stockholders

ID2020



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State of Illinois

-6 state and local agencies:

- Pollution Control Board
- Commerce & Econ Opp
- Innovation and Technology
- Financial & Prof Regulation
- Insurance
- Cook Cty Record of Deeds

-3 goals:

- Thoughtful & Light Touch
- Support Blockchain

Ecosystem

- Government Integration



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## Recommended Gartner Research

- ▶ [Blockchain Trials Across Industries Show the Pulse of a Rapidly Moving Professional Services Market](#)  
David Groombridge, Jacqueline Heng and Rajesh Kandaswamy (G00322046)
- ▶ [Market Guide for Blockchain Consulting and Proof-of-Concept Development Services](#)  
Jacqueline Heng, Rajesh Kandaswamy, Neil Barton and David Groombridge (G00317612)
- ▶ [Toolkit: Overview of Blockchain Use Cases](#)  
David Furlonger (G00302283)
- ▶ [How to Make the Most of a 'Pointless' Blockchain Project](#)  
Ray Valdes and David Furlonger (G00315764)
- ▶ [How to Determine If You Need a Blockchain Project, and If So, What Kind?](#)  
Rajesh Kandaswamy and Fabio Chesini (G00320247)
- ▶ [How to Develop a Business Case for Blockchain Projects](#)  
Rajesh Kandaswamy and David Furlonger (G00323011)

For more information, stop by the Experts Desk in the CIO Lounge.

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