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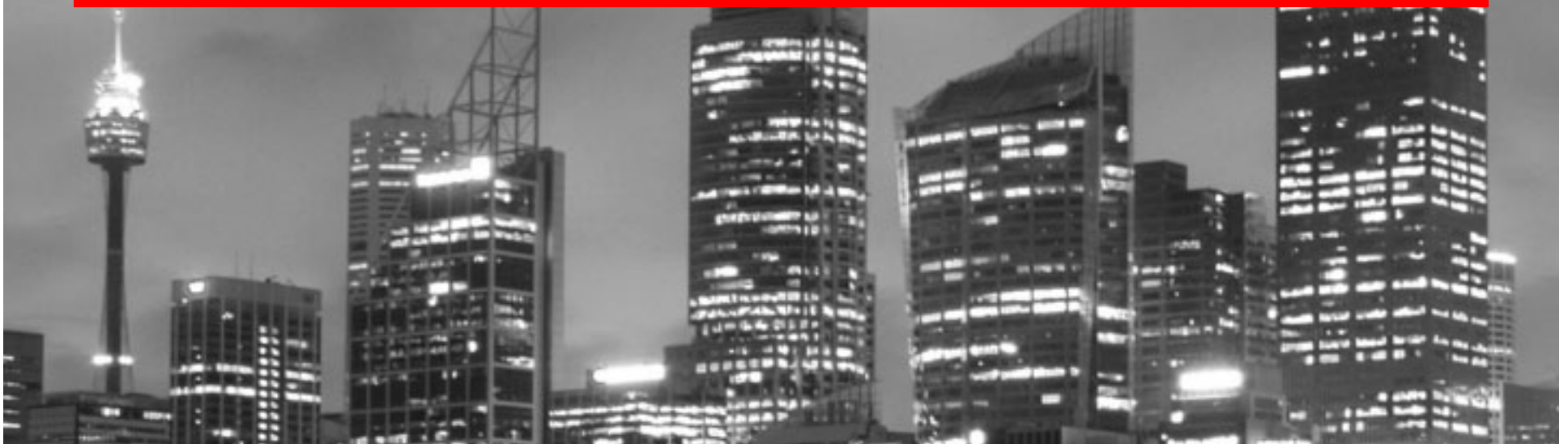


Smart Contracts

Presentation to ACC

18th October 2016

Sean Murphy





What
is a
blockchain?

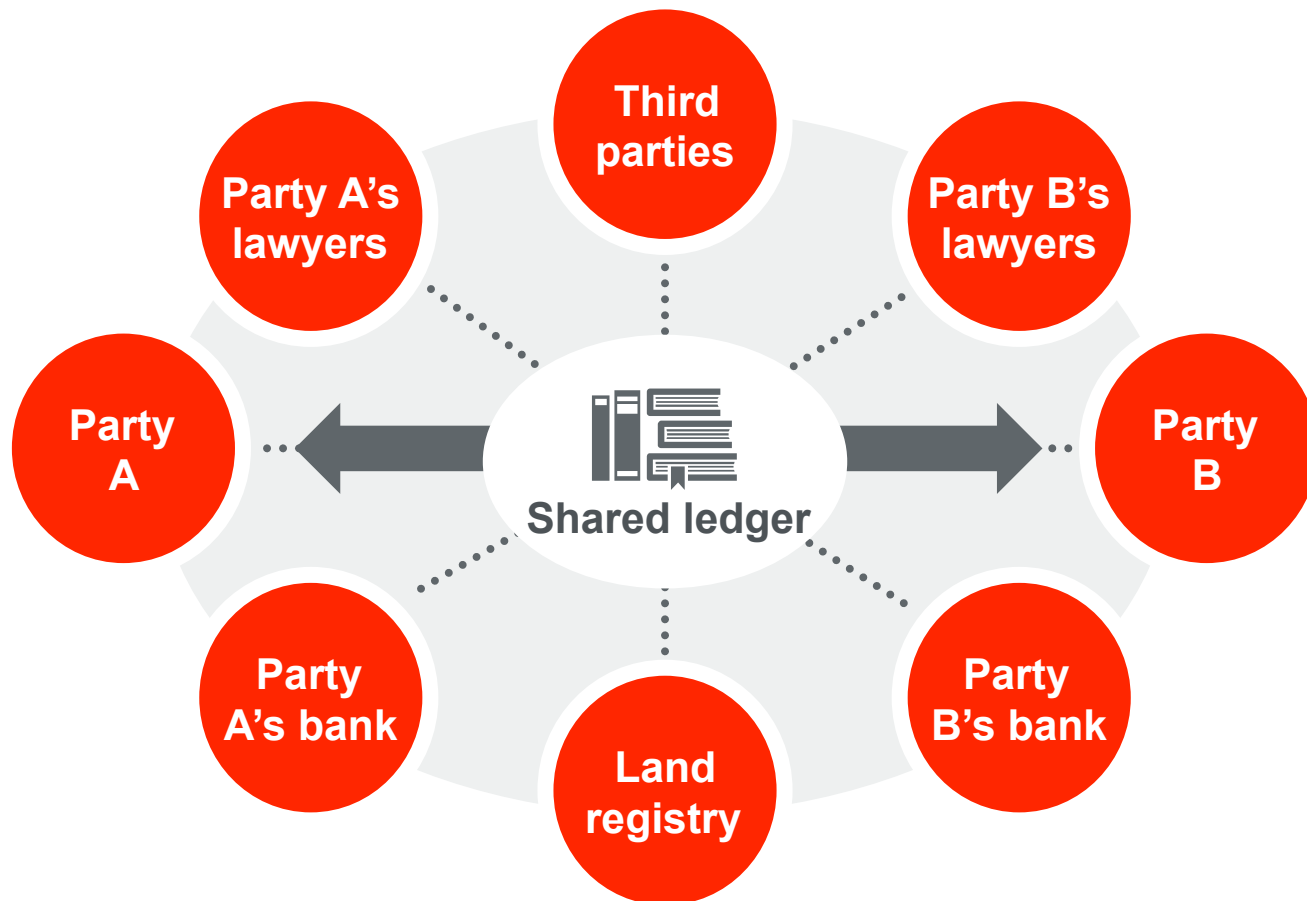
How do
blockchains
operate?

What are the
benefits of
blockchains?

What are
smart
contracts?

How do
smart
contracts
work?

What is a blockchain?



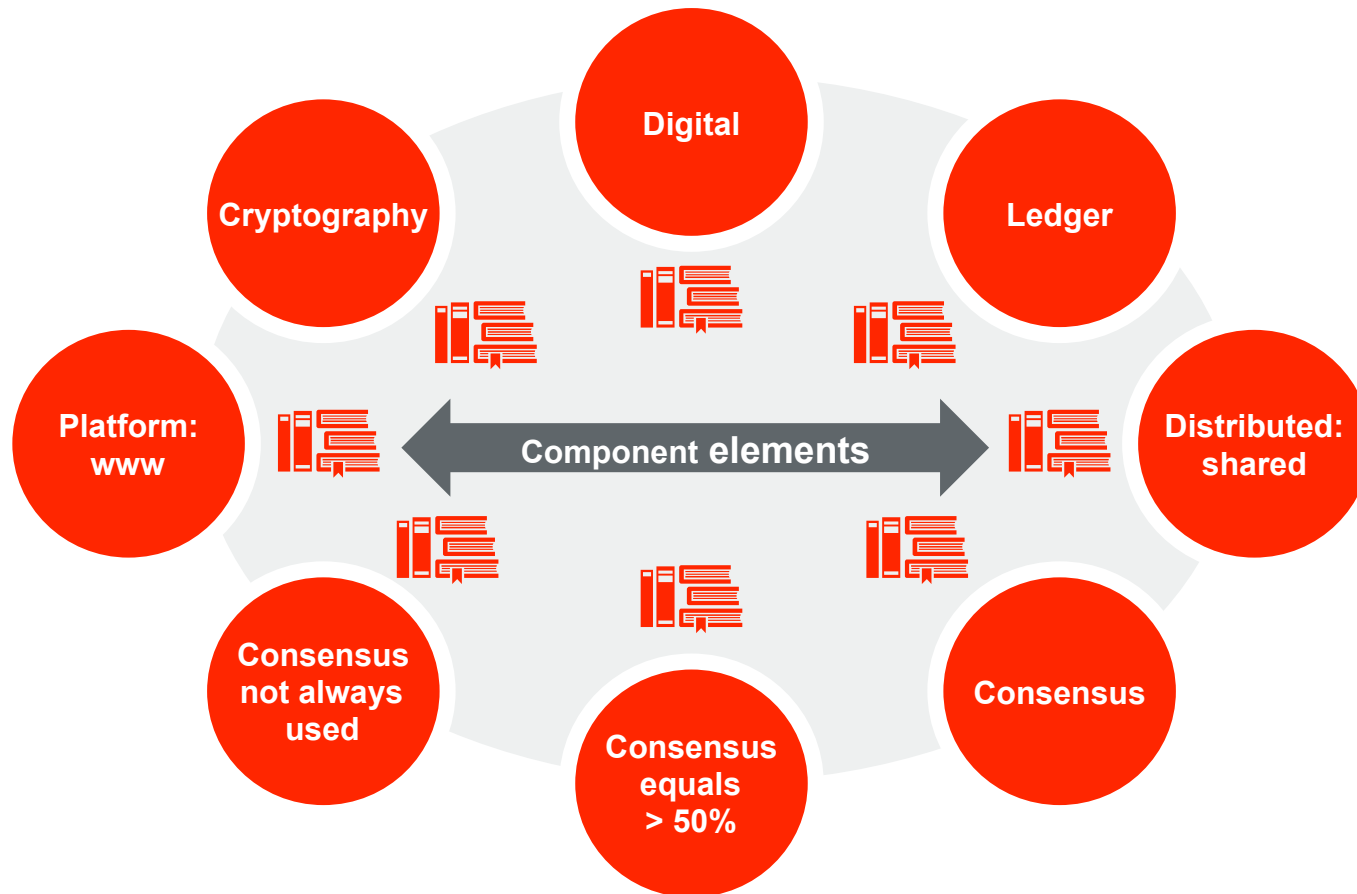
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*A blockchain is a digital,
distributed transaction ledger,
with identical copies
maintained on multiple
computer systems controlled
by different entities.*

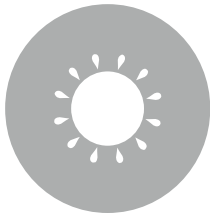
David Schatsky and Craig Muraskin, *Beyond Bitcoin: Blockchain is Coming to Disrupt your Industry*, Deloitte University Press, 2015

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What makes up a blockchain?



What are the performance characteristics?



Transparency



Time stamped



Immutable



No single point of failure

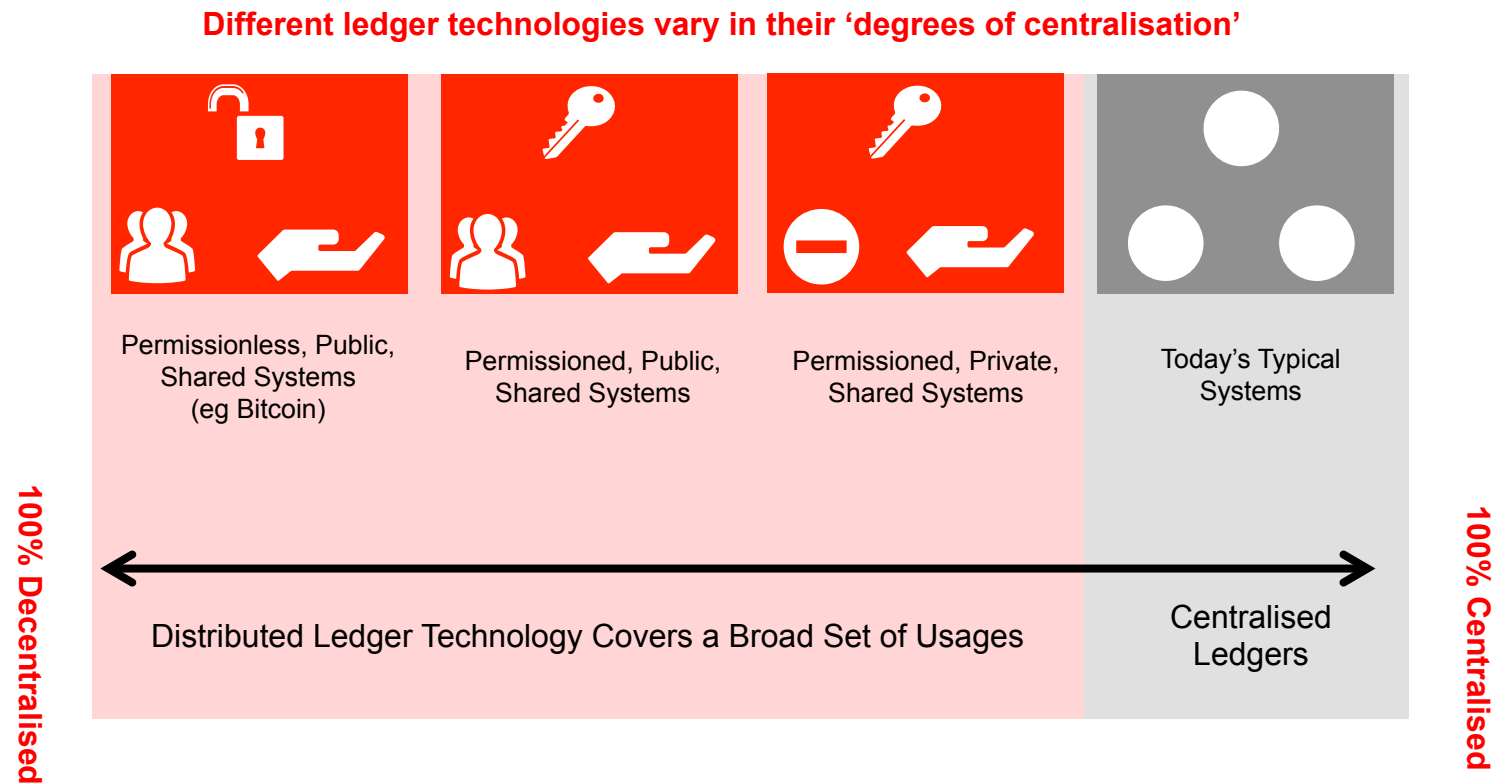


Irrevocable



Programmable

What is a permissioned blockchain?



UK Government Chief Scientific Adviser, Government Office for Science, *Distributed Ledger Technology: Beyond Blockchain*, 2016

What is a smart contract?

“

I hear more and more people talking about 'smart contracts' these days. But when you push them to define the term, the concept often dissolves in their hands.

Richard Gendal Brown,
A Simple Model for Smart Contracts, Gendal.me,
10 February 2015

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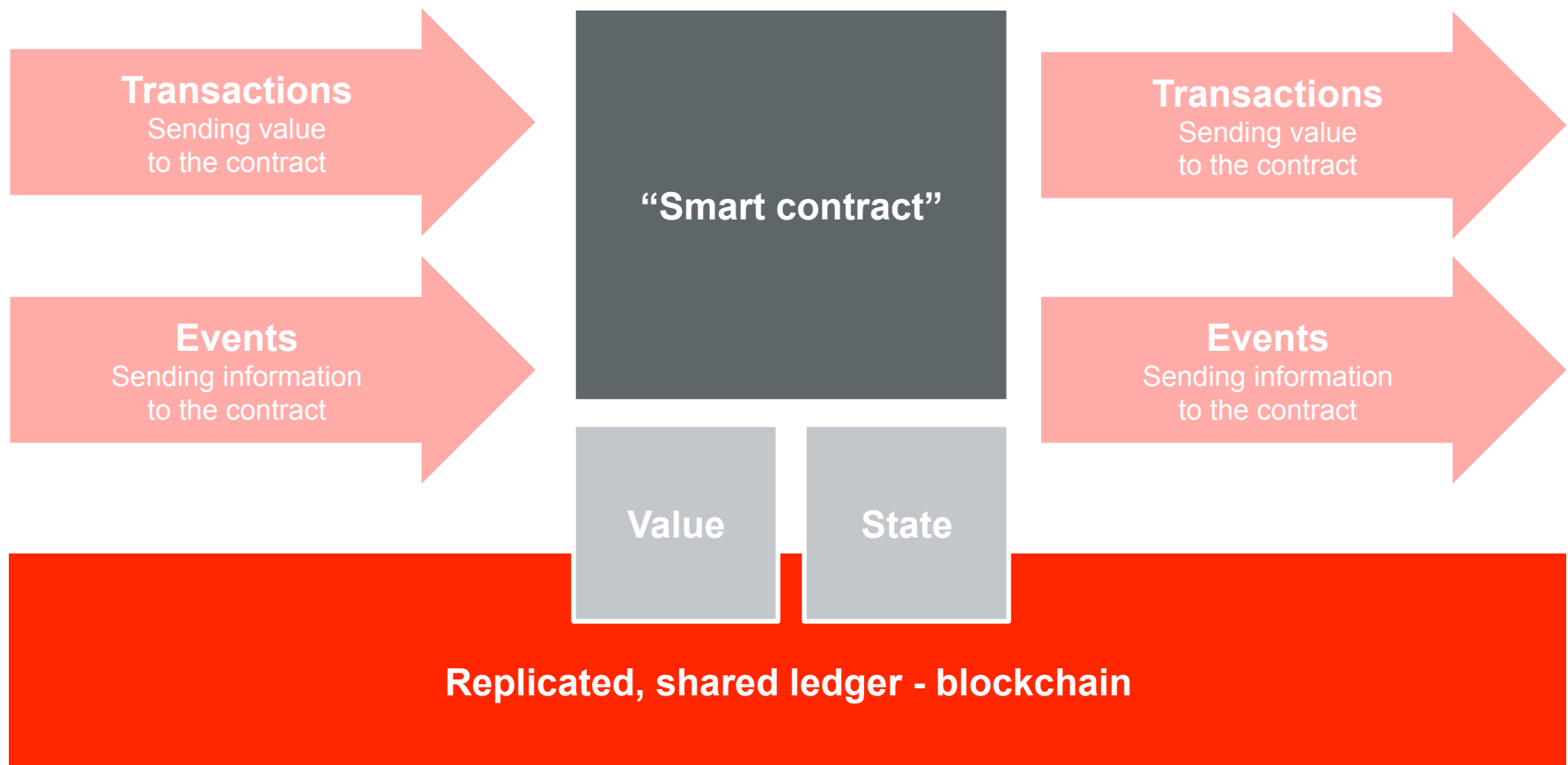
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A smart contract is a set of promises, specified in digital form, including protocols within which the parties perform on these promises.

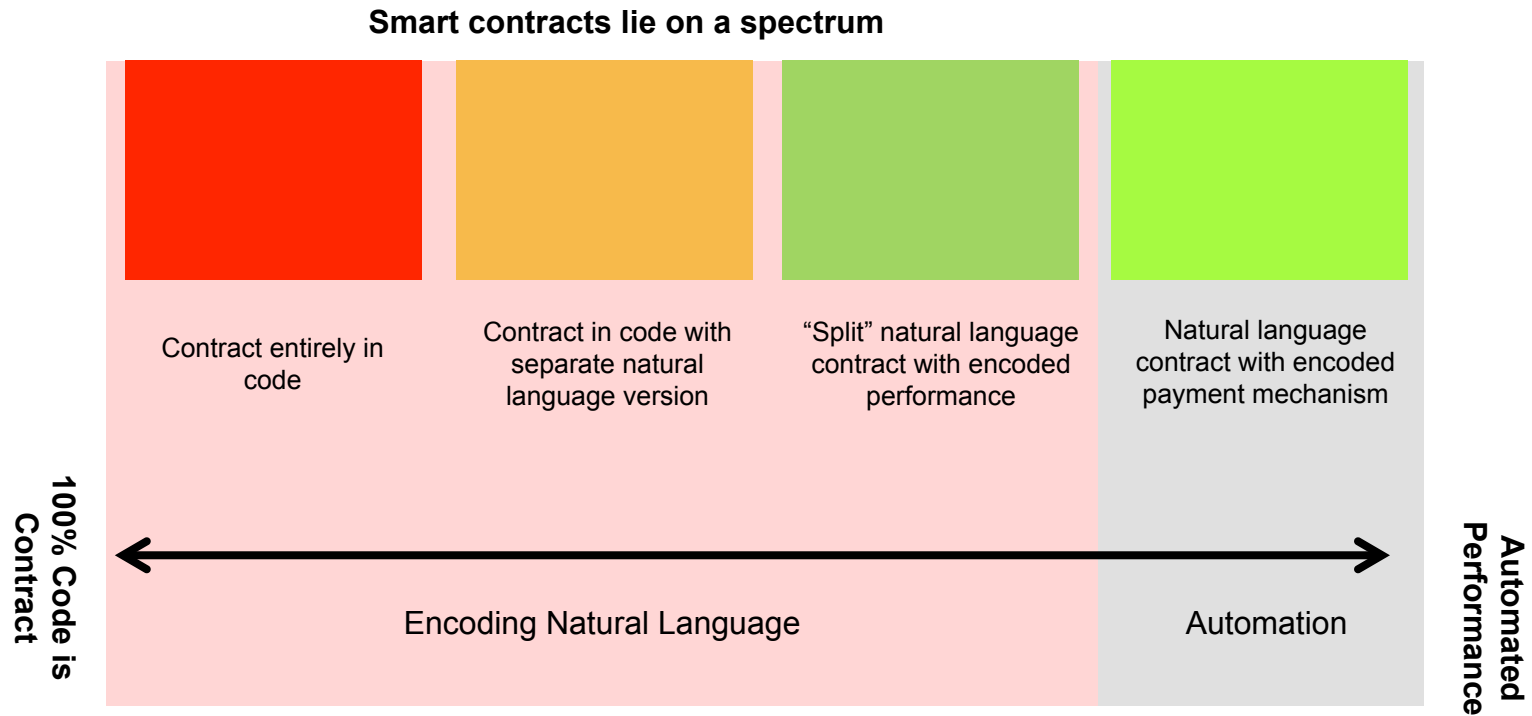
Nick Szabo,
Smart Contracts: Building Blocks
for Digital Markets, 1996

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How does a smart contract work?



A spectrum of possibilities?





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