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Block Chain Technology For Professionals

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Objectives & Outlines

CREDITS & ACKNOWLEDGEMENT

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DISCLAIMER

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OBJECTIVES & OUTLINES

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What is a Block Chain?

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India's most influential state-run think tank is set to undertake a research project to explore the use of blockchain technology for fertilizer subsidy disbursements to farmers.

The National Institute of Transforming India (NITI), the Indian government's primary policy-making body, has entered a statement of intent (SOI) with the fertilizer giant Gujarat Narmada Valley Fertilizers & Chemicals Limited (GNFC) to develop a blockchain solution for subsidy management in the fertilizer industry. As reported by the Press Trust of India, the think tank also intends to outline policy recommendations to turn current subsidy mechanisms more immune to data leaks while improving transparency based on the outcome of the research.

Indian Prime Minister Narendra Modi recently hailed blockchain's transformative potential and emphasized the need for "rapid adaptation," a rare instance of a head of state publicly praising the technology.

Blockchain's grand promise is to do for transparency what the Internet did for communication. It increases trust between two parties -- a particularly big deal in economies with low counterparty trust. More than 80% of Indians work in the informal economy, which relies more on interpersonal trust than formal contracts, leaving them vulnerable to fraud. The country has a 69% bribery rate and was ranked the most corrupt nation in Asia in 2017. Loan frauds average almost $2 billion a year, and to hedge against this, interest rates on business loans routinely run high, up to 20%, denoting low trust.

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WHICH IS THIS PORT?

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Enter Vizag

In 2016, the government of the southeastern state of Andhra Pradesh launched the ambitious "FinTech Valley Vizag" initiative with the aim of building Visakhapatnam, or Vizag, into a world-class fintech ecosystem bringing together government, academia, corporates, investors and entrepreneurs. FinTech Valley Vizag's chief architect, Andhra Pradesh Chief Minister Chandrababu Naidu, has done this before. He's widely credited with transforming Hyderabad, which hosts the Indian headquarters for both Google and Facebook, into a premier tech hub.

As of late 2017, FinTech Valley Vizag has attracted $900 million in investment and created 5,500 jobs -- though the original aim was to create an incredible 500,000 jobs by 2020. Subsequently, Andhra Pradesh has become the first state in India to adopt blockchain for governance. It has piloted two key projects: managing land records and streamlining vehicle registrations. Blockchain helps to protect the state's digital assets and transactions, preventing tampering by outsiders or even government insiders. This is a big deal in a country where, as per a study by think tank Daksh, property-related disputes account for a staggering 66% of all civil cases and a 0.5% drag on the GDP. The state plans to eventually implement blockchain across the entire administration.

Andhra Pradesh state has also partnered with private companies to test use cases. For example, it has now secured more than 100,000 land records through Indian blockchain startup Zebi Data, which is also working with other states including Maharashtra and Telangana. Swedish blockchain startup, ChromaWay, has also partnered with the state to provide land registry solutions, leveraging lessons from projects abroad including those with Lantmäteriet, Sweden's land registry authority, and Kairos Future, a consulting firm.

FinTech Valley Vizag plans to build the largest repository of blockchain use cases in other key areas such as transport, finance and digital security. It has partnered with Covalent Fund to create Velugu Core, a pioneering India-focused blockchain stack. This would make government data freely and digitally available through open APIs (Application Programming Interfaces), which could then be used by developers to build apps. For example, an individual looking to purchase a particular property could hypothetically access government data through an app built using this stack and get public information on all previous ownership and transaction details. Vizag has also partnered with KPMG to launch a BFSI use case repository program to identify blockchain and other tech solutions to common problems in the banking, financial services and insurance sectors.

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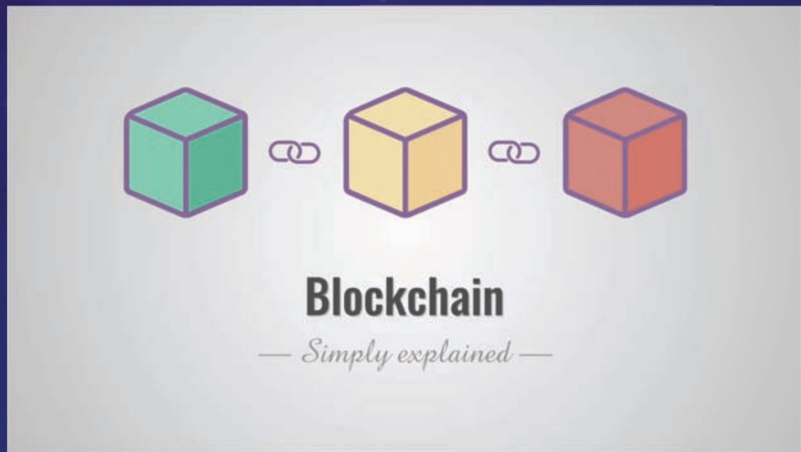
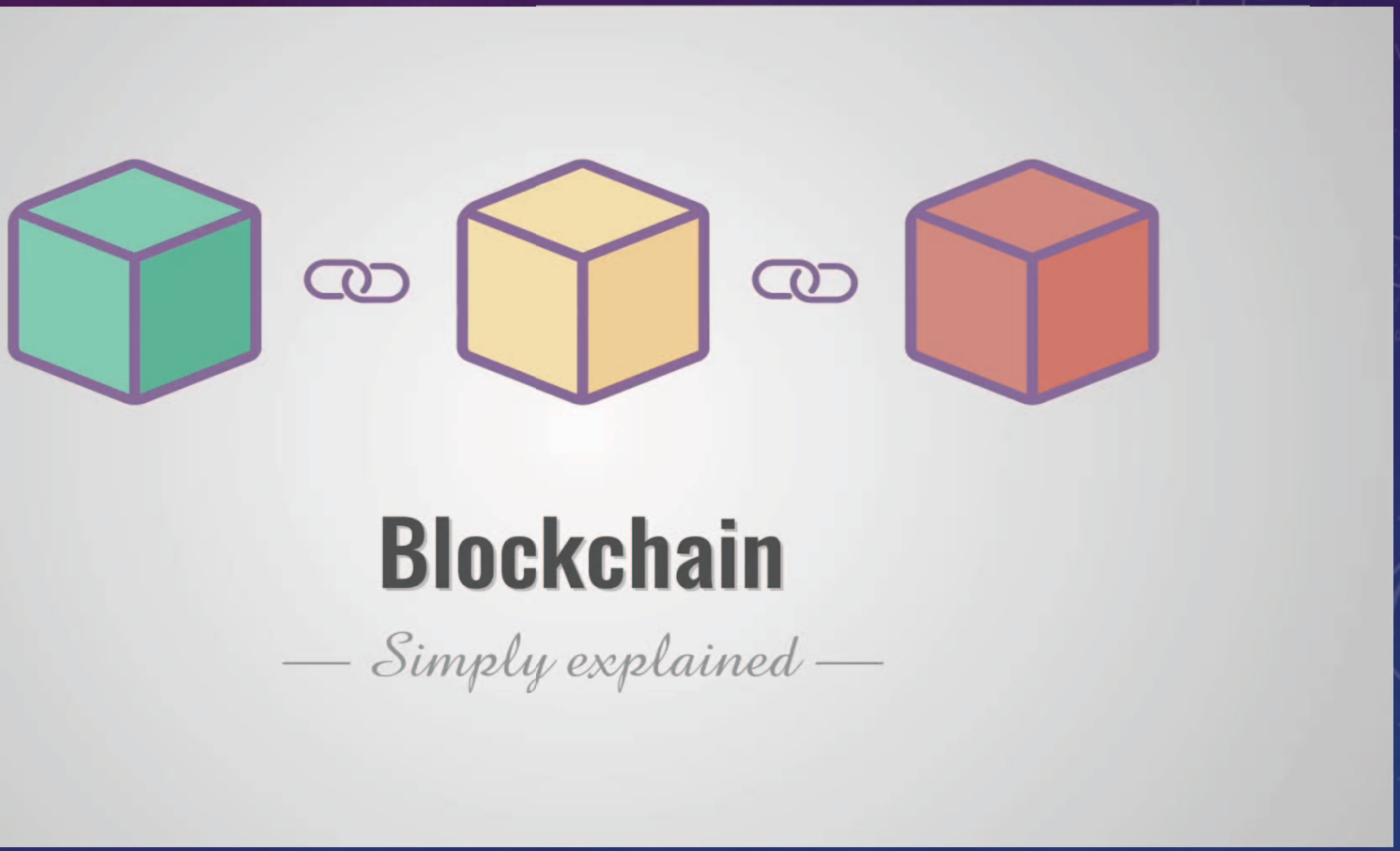
Introduction to Block Chain


Blockchain
— Simply explained —


Blockchain
Simply explained

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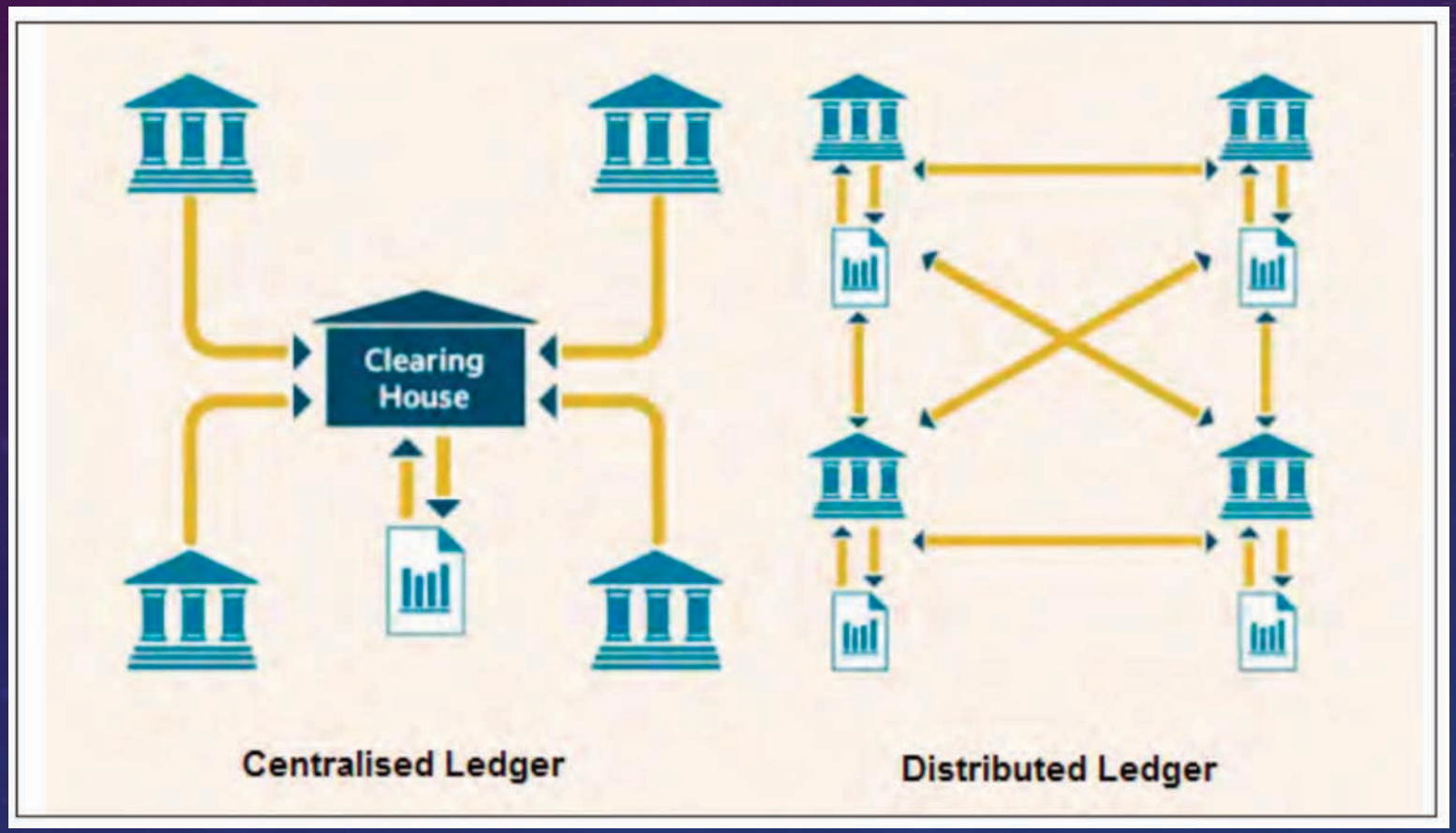

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Major Applications

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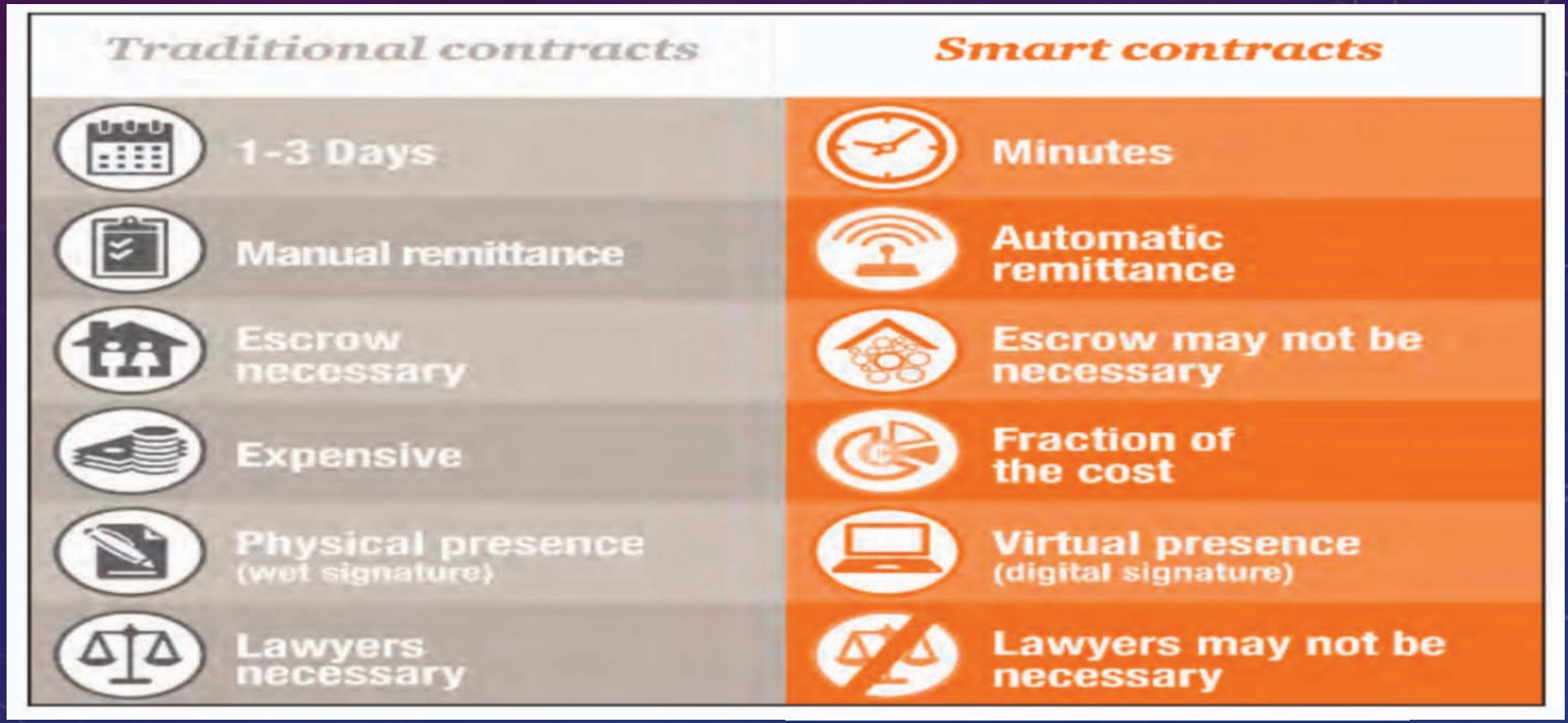
SMART CONTRACTS



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Impact in Accounting

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Fig: Double- Entry accounting system.

(Double-entry + Cryptography

Fig: Triple entry accounting system

Triple entry accounting system: It can be understood

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ACCOUNTING ASPECTS

S.No.	Blockchain Features	Use in Accounting and Auditing
1.	Distributed Ledger	Since it is distributed ledger technology with no central authority it is almost impossible to hack all the nodes in the network. Provides highly secured environment
2.	Near Real-time updating	Transactions are recorded in near-real time basis at both the supplier and recipient end eliminates need for reconciliation.
3.	Digital and Time-Stamped (Hash)	All transactions are digitally time-stamped with a cryptographic hash, transactions are more reliable and authenticated.
4	Consensus	Transactions are updated only with the agreement between participants in the system and each block is linked to a specific participant.
5	Immutability	Data written to a Blockchain cannot be altered even by system administrator. This ensures greater data security and authenticity of recording

Early Adopters in India

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Challenges in adoption

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Salient Features re-captured

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FUTURE

Block Chain Technology

Thanks for your Time and Input