

# How Web3, Blockchain and NFTs Can Benefit Your Organization

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# Key Issues

**1**

**What is  
blockchain  
and how can  
it help you?**

**2**

**How are  
NFTs and Web3  
being leveraged?**

**3**

**What risks and  
challenges must  
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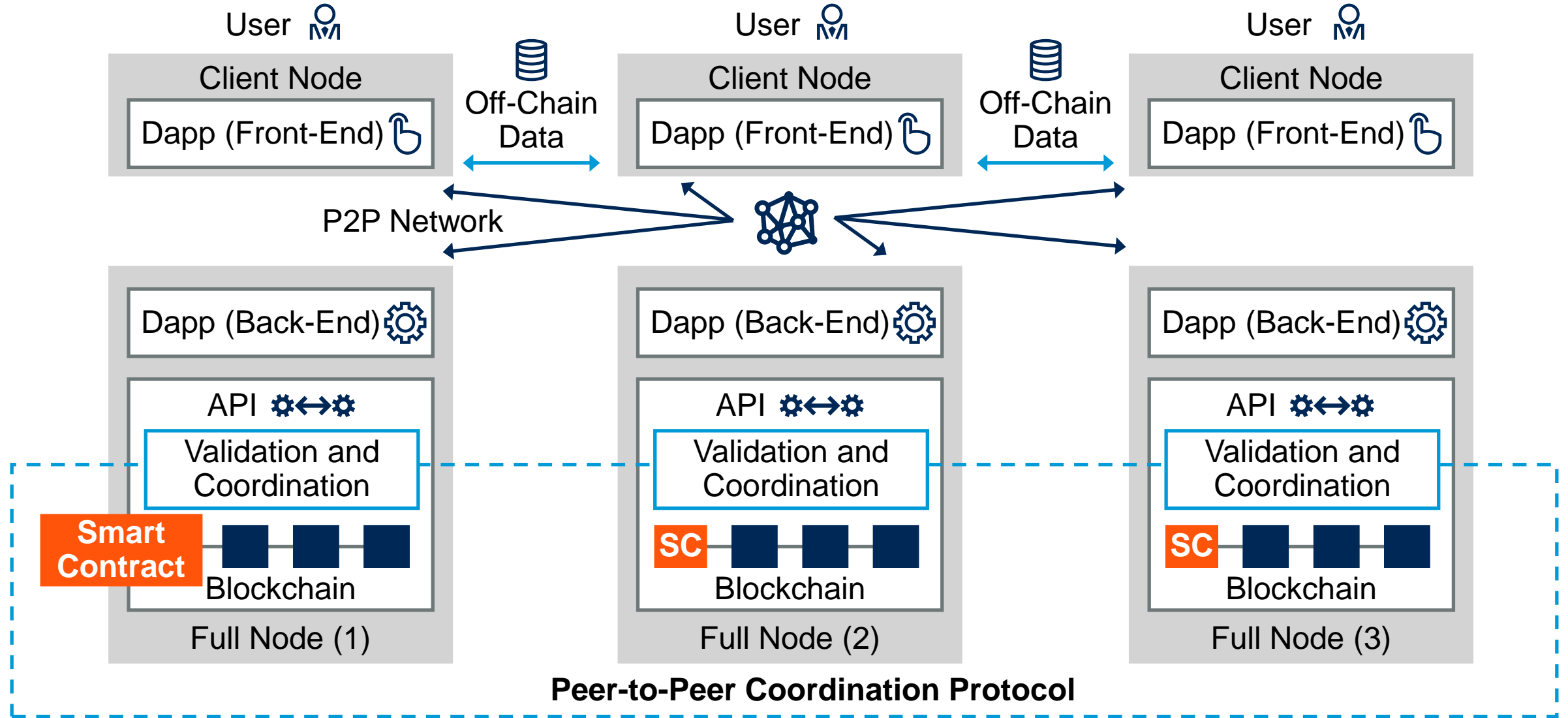
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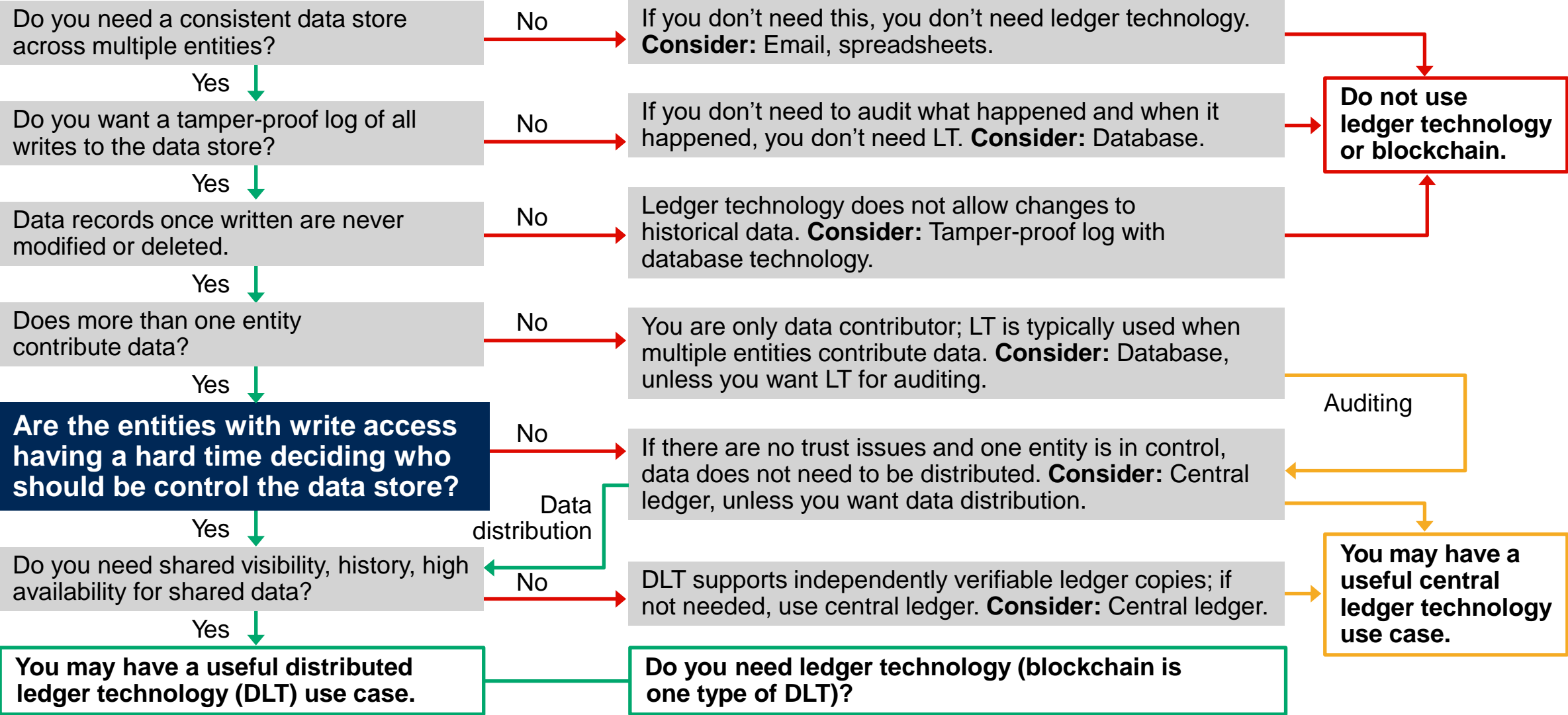
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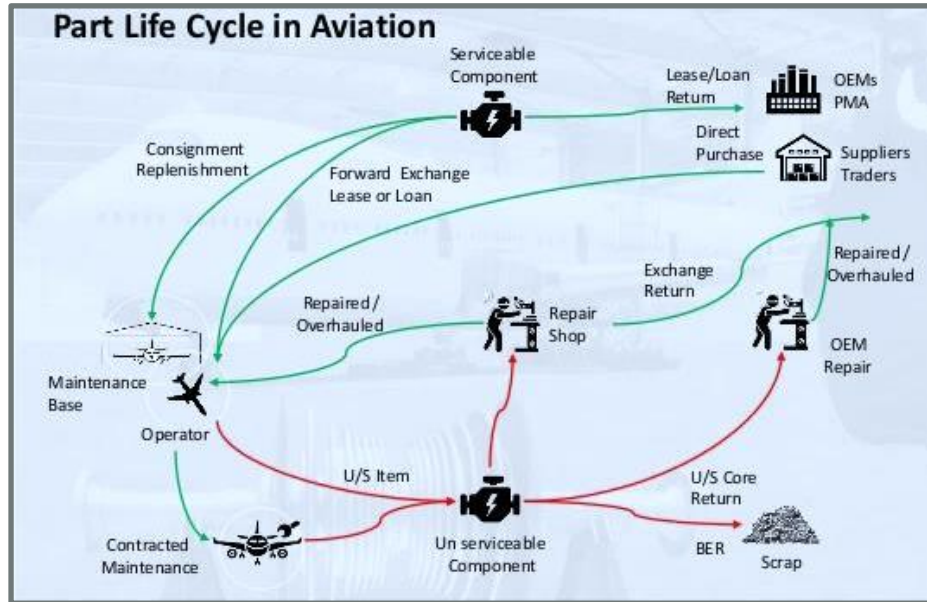
# What Is Blockchain? The Architecture



# Decision Tree for Blockchain Ledger Technology



# Airlines Use NFT Smart Contracts to Streamline MRO



**Air Transportation Industry:**  
**25,000** commercial aircrafts  
**25B** parts + **3B** new parts per year

## Challenge:

Fragmented point-to-point processes  
=> siloed data and trust issues.

## Blockchain Components Solve Multiple Issues

### Use tokens/smart contracts to manage parts:

- **Ensure provenance and completeness** of part records back to birth:
  - Parts can lose up to 60% value due to incomplete records.

### Accelerate change of ownership:

- Before: Three to six months of manual work for engine lease return.
- After: +10% of annual revenue potential for lessor.

### • **Certify part availability** to eliminate “ghost inventories:”

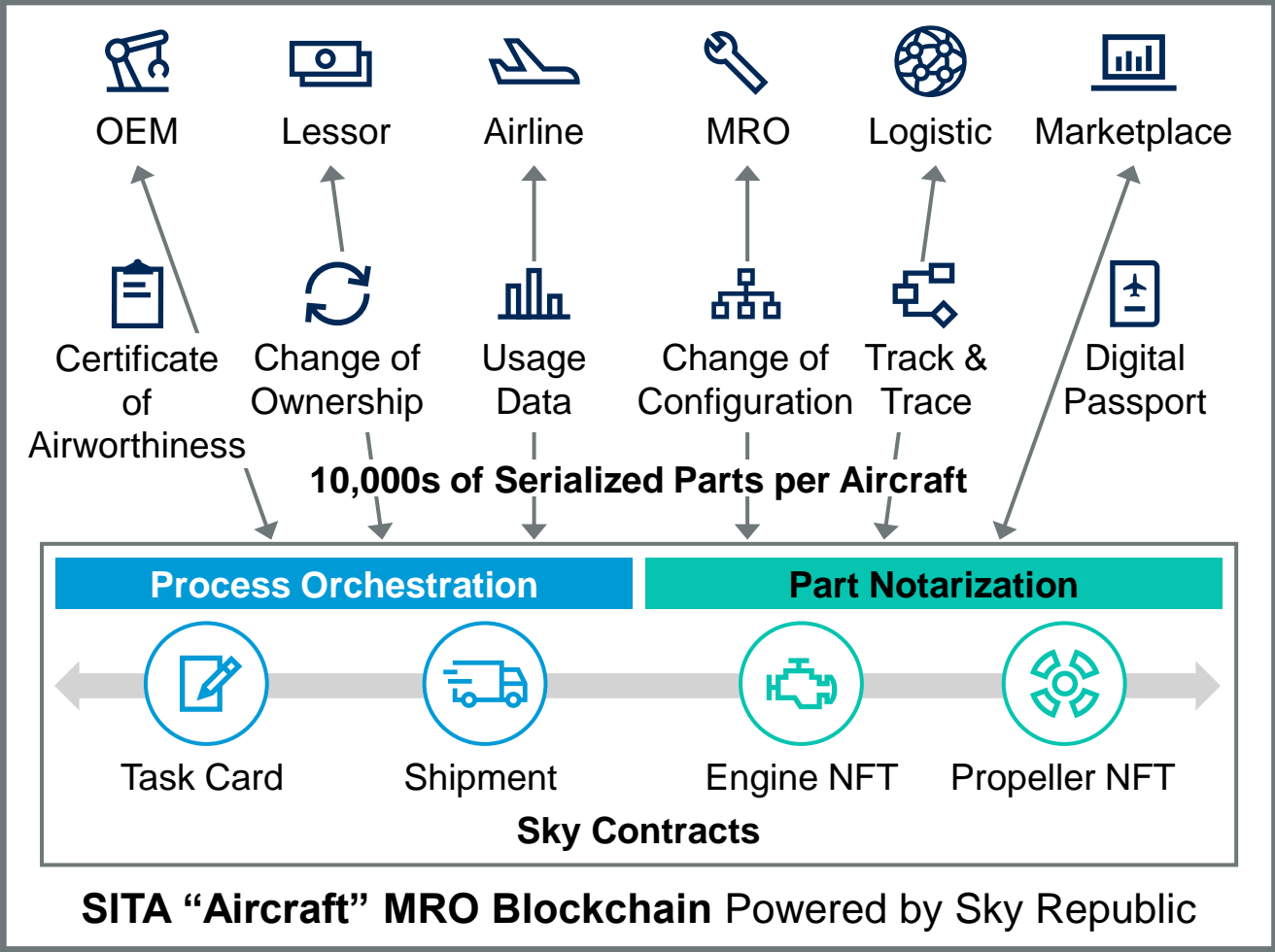
- Airlines purchase up to seven times a part in AOG situations to ensure they will get the part they need.

### Orchestrate multiparty MRO processes for higher returns and lower costs:

- **Shorten** “aircraft on ground” situations:
  - Up to \$150K revenue loss per hour.
- **Streamline** maintenance activity:
  - Costs up to \$5M a year per aircraft.
- **Reduce** part inventories:
  - \$1.5B to \$2B average for a major airline.
- **Eliminate** friction:
  - Repair penalties for MROs up to 15% of part value per day.
  - Lease return penalties up to \$1M for airlines.

# Solution: SITA Aircraft MRO Enterprise Blockchain

Co-Owned by 400 Companies, SITA Provides Technology Solutions for the Air Transport Industry



## Aerospace Smart Contracts and NFTs:

- Permissioned Access and Visibility
- Participants Keep Data Ownership
- Confidentiality Up to Record/Transaction Level
- Compliance and Legal Protection (PKI)
- Support of EDI and Record Standards
- No ERP Disruption (Integration as Is)
- Automated Reconciliation
- Governed, Community-Based and Open Platform for the Industry

Source: Sky Republic; SITA

## Key Issue Take-Away:

- Blockchain supports key unique innovations and digital capabilities that transform digital business.
- Make sure your use case needs blockchain so you do not waste resources.



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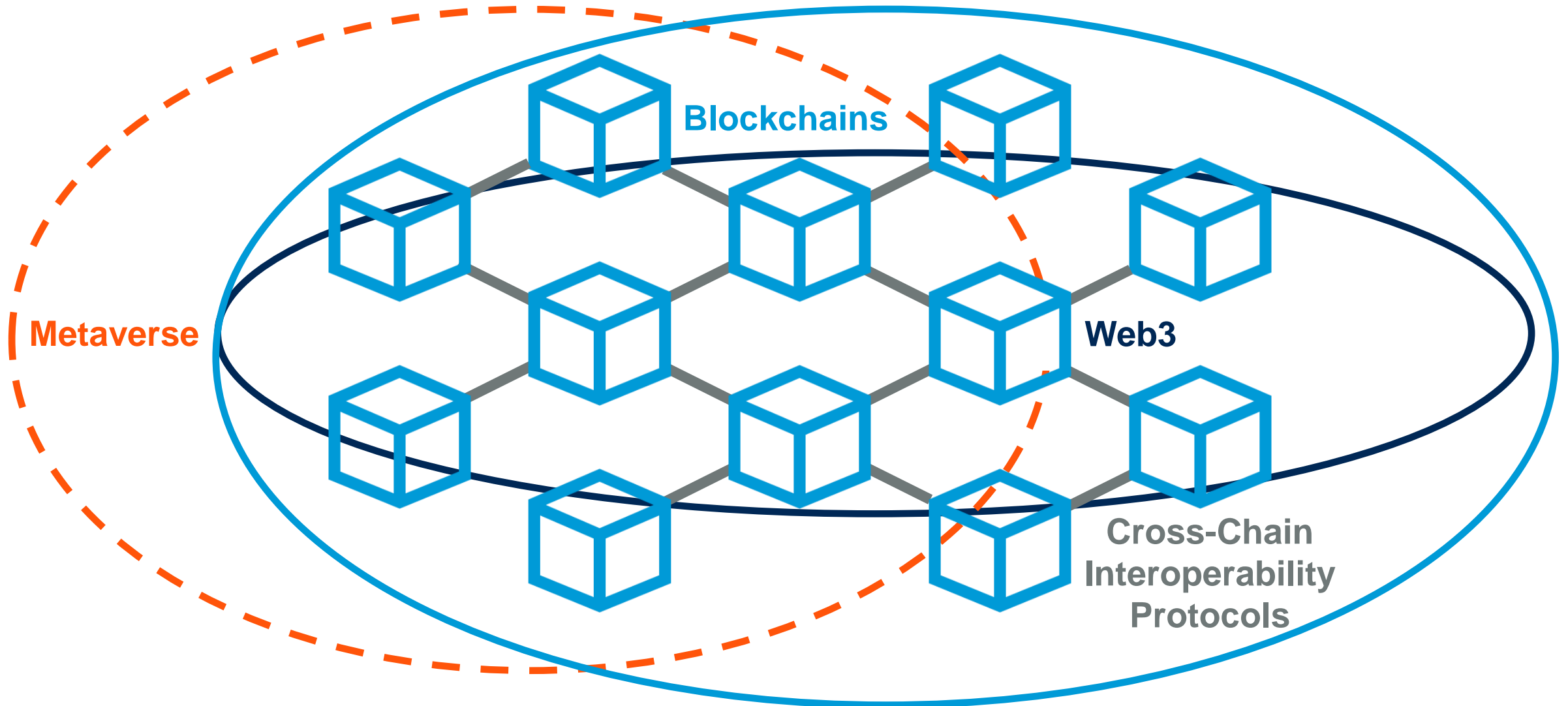
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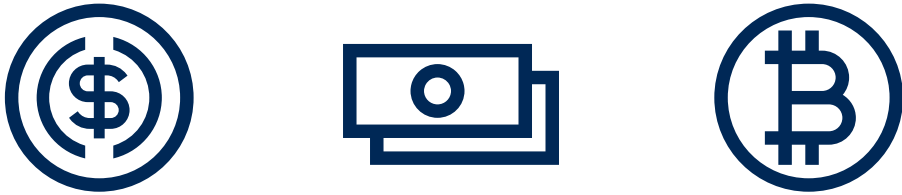
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# Web3 Sits Atop Multiple Blockchains



# Web3 in Action; Two Types of Tokens

## Fungible Tokens



Digital Money Built Into  
the Blockchain Protocol

## Non-Fungible Tokens (NFTs)



Creator-Owned Content, Data and  
Objects (No Longer Belongs to  
Hosting Service)

**Token Programmability via Smart Contracts**

# Types of Fungible Tokens and Digital Currencies



## Cryptocurrency

### Fungible Tokens:

Decentralized control, lives on public transparent blockchain; Bitcoin and Ethereum are the top two in market cap.



## Stablecoin

### Fungible Tokens:

Cryptocurrencies designed for stability; pegged to a specific value. Most popular stablecoins are fully reserved and pegged to USD.



## Central Bank Digital Currency (CBDC)

### Fungible Currencies:

Fiat currencies issued by central banks in digital form. Central banks maintain reserves to back it.

CBDCs don't require blockchains and tokens, and generally don't use them.

# How Is Corporate Mainstream Adopting Crypto?

## Hiring Experts and Building Infrastructure



## Transacting and/or Using Crypto for Payments and Rewards



## Institutional Adoption

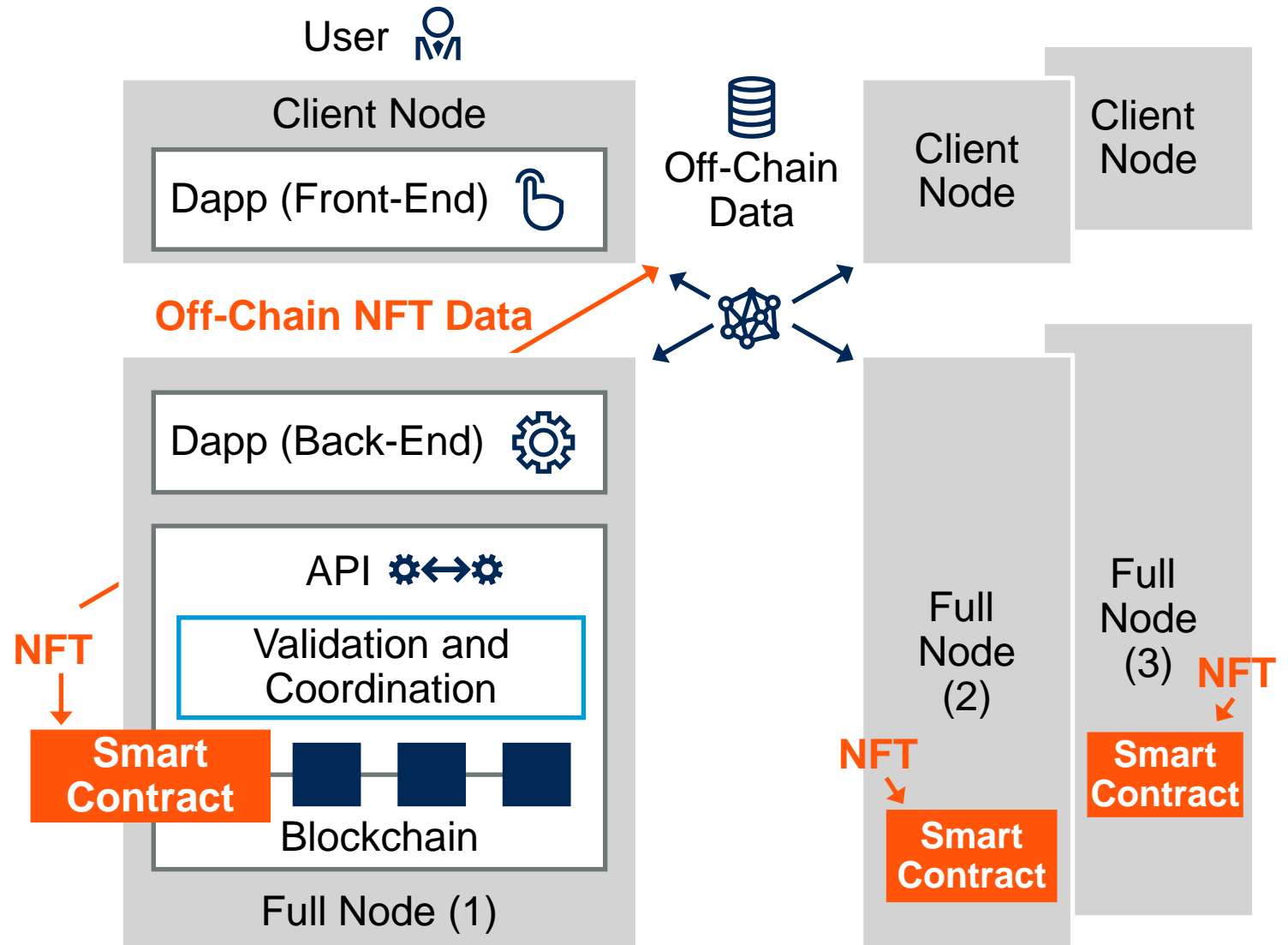


# What Can Organizations Do With Digital Currencies?

Digital Currency Role	Use Cases
Stored Value	<ul style="list-style-type: none"><li>• Buy and hold on balance sheet.</li><li>• Provide regulated digital asset custody for customers who want access to cryptocurrencies.</li></ul>
Payments	<ul style="list-style-type: none"><li>• Integrate with stablecoins or cryptocurrencies for payments.</li><li>• Support one-time, recurring, B2B, B2C, B2B2C payments.</li></ul>
Invest	<ul style="list-style-type: none"><li>• Compliant investing in cryptocurrencies or decentralized finance (DeFi) applications; lending to compliant exchanges.</li><li>• Staking for income; for your organization and for customers.</li></ul>

# What Are NFTs?

- NFTs are unique programmable digital items that can represent digital or physical entities.
- Ownership is public record.
- Smart contract controls scarcity, creator ownership rights and any other logic.
- NFT metadata and logic stored in smart contract.
- NFT data, objects usually linked and stored off-chain.



Peer-to-Peer Coordination Protocol

# What Types of NFTs Do Enterprises Interact With?



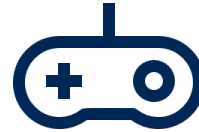
## Digital Art

- PFPs (Profile Pictures)
- Computer-Generated or Autogenerated Art
- One of a Kind



## Brand NFTs

- For Sales, Marketing, Brand Expansion



## Gaming NFTs

- i.e., Decentraland, Axie Infinity, The Sandbox



## Digital Identity NFTs

- Users Will Set Up Their Own Identity Record as an NFT
- Smart Avatars



## Real-World Asset NFTs

- Bonds, CDs, Real Estate, Documents, Ticketing, Textbooks, Software, Images, IP, Cars, etc.



# Brands Use NFTs to Expand Revenue in Web3 Platforms

## Increase Brand Equity by Acquiring Virtual NFT Gaming Space; Some Transact:

- JPMorgan Chase buys land in Decentraland; sets up “Onyx by J.P. Morgan.”
- HSBC acquires “land” in The Sandbox to engage and connect with sports and gaming enthusiasts.



## Issue and Sell Exclusive Brand-Based NFTs:

- Gucci produces and sells 100 exclusive NFT bags for \$5,000 to \$10,000.

# Brands Use NFTs for Marketing as Consumers Establish Their Own NFT Identities

## NFTs for Marketing, Giveaways and Airdrops:

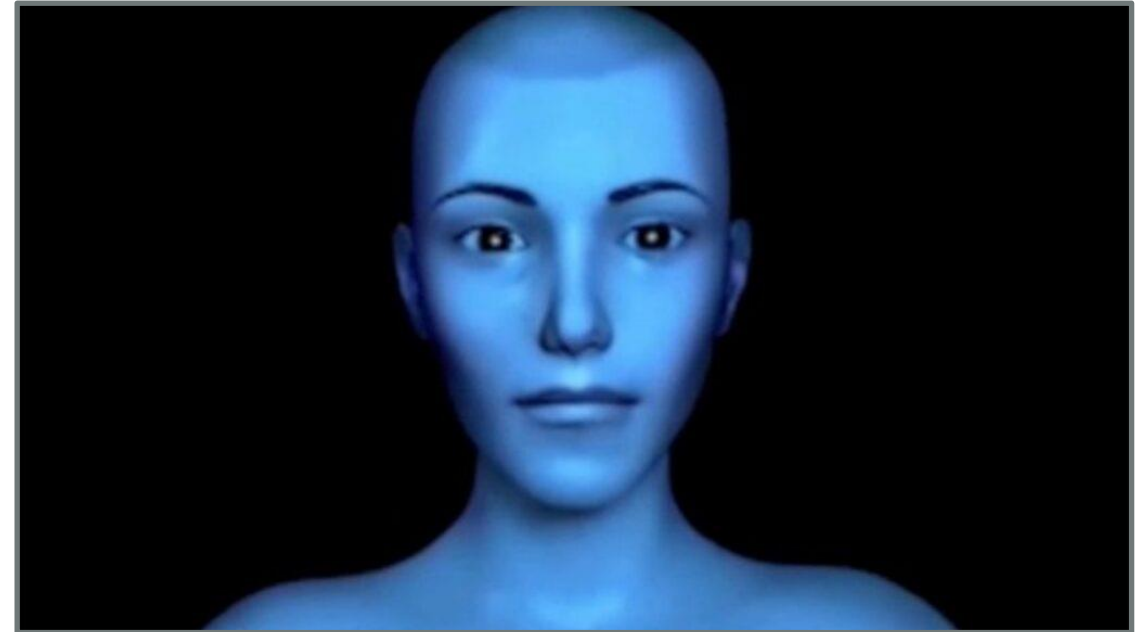
- [NFL gives fans virtual NFT commemorative tickets](#) for Super Bowl LVI in Los Angeles.

## NFTs as Loyalty Rewards:

- Starbucks issuing NFTs in 2022 for “special experiences, community and perks” (see [Starbucks blog](#)).

## Digital NFT Identities:

- Users set up their identity record as NFT.
- Soulbound NFT — nontransferrable.
- Opt-in personalized marketing offers to come.
- NFT identities integrate into your avatar:
  - NFTs get smart with AI training.
  - Smart avatar will represent you at meetings.



[Alethea AI and Artist Robert Alice Launch Sotheby's Auction of the “First Intelligent NFT”](#), VentureBeat.

# NFTs Improve Real-World Asset Management



## **Real Estate:**

Four-bedroom home in Gulfport, Florida tokenized as an NFT and sold for \$650,000.



## **Hotel Rooms Sold as NFTs:**

Casa De Campo in Dominican Republic selling room reservations as NFTs; buyer can resell on secondary market if unable to travel.\*\*



## **Tokenized Assets as Collateral for DeFi Loans:**

In March 2022, Tesla closes a \$7.8 million deal using MakerDAO to finance new repair and collision center.



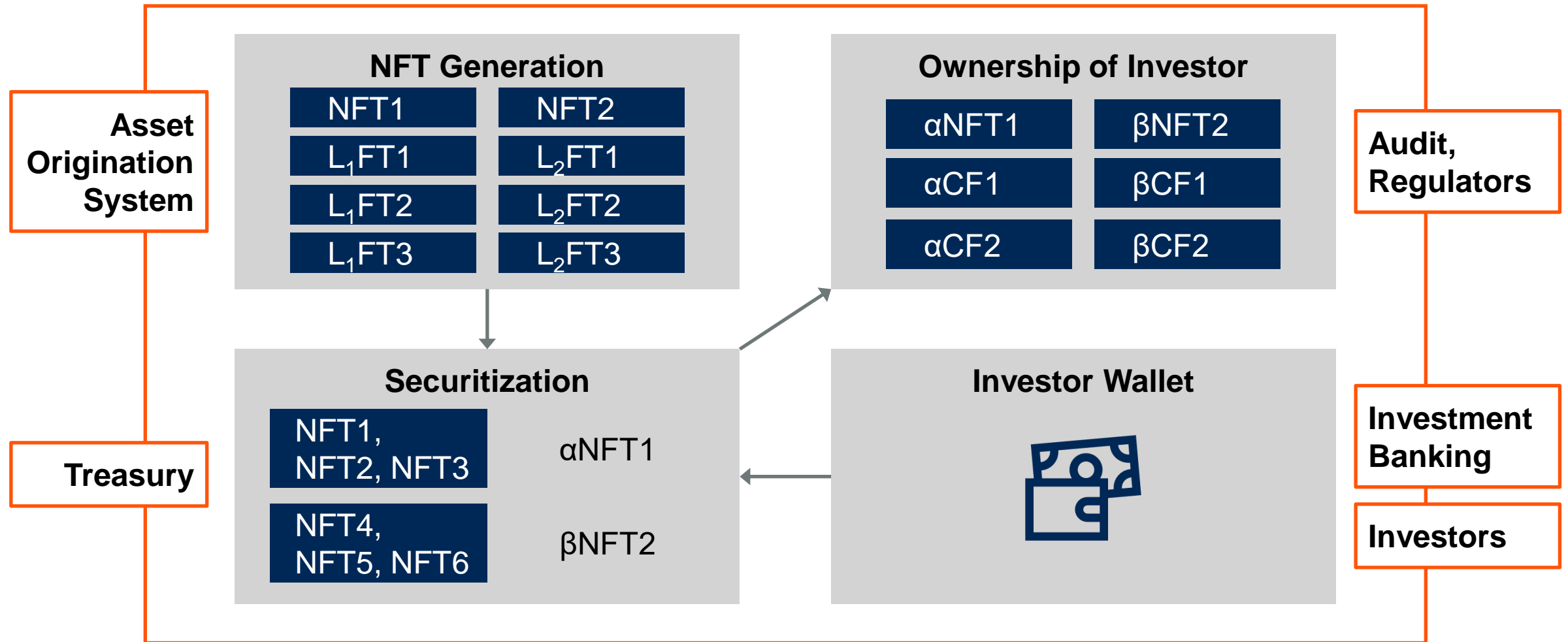
## **Libraries:**

Vatican puts its archived documents online as NFT documents.\*

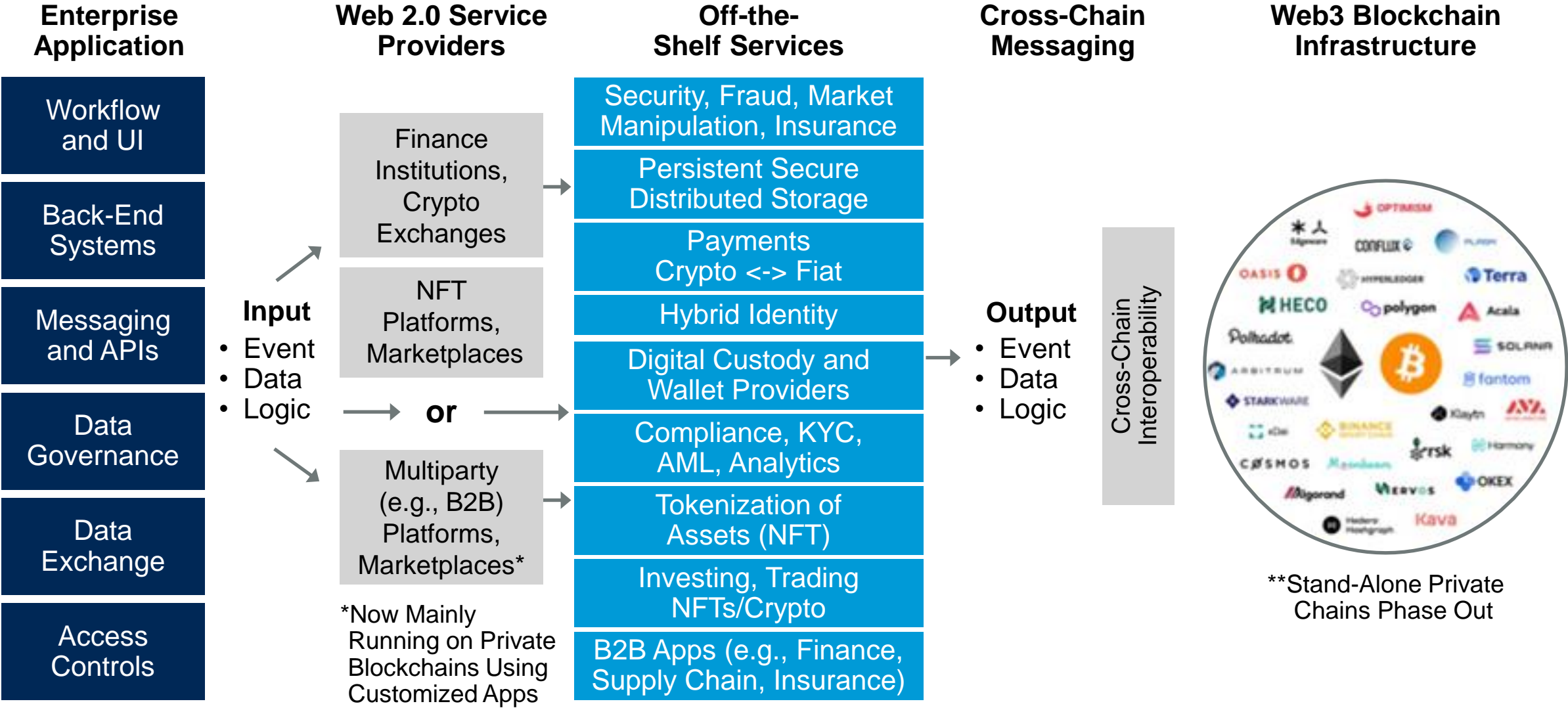
\*ShelterZoom technology supports this project.

\*\*Pinktada supports this project.

# Financial Institutions Use NFTs to Derisk Trades of Mortgage-Backed Securities



# How Enterprises Interact With Web3



## Key Issue Take-Away:

- Consumers and organizations are adopting cryptocurrencies. Evaluate if and how you should participate in this adoption.
- Evaluate the use of NFTs for various use cases, including innovative ways to manage real-world assets.

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# Strategic Planning Assumption

By 2025, 25% of enterprises will use centrally controlled services wrapped around decentralized Web3 applications.

## Why it **will** happen:

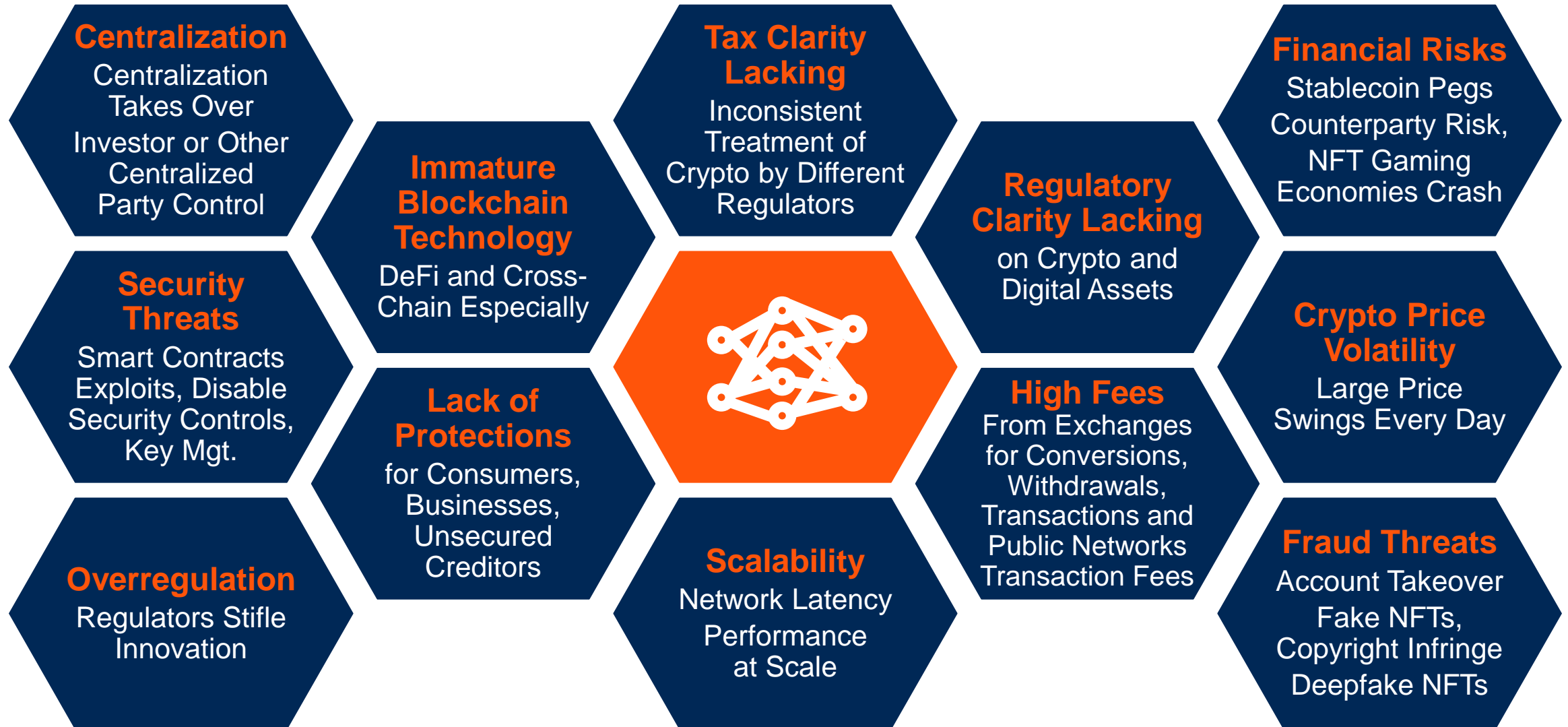
- Web3 provides unique capabilities that benefit enterprises who want to retain control.
- Consumers and businesses are already adopting Web3:
  - Enterprises must meet them in these new environments.
- Costs are decreasing and off-the-shelf services are increasing.

## Why it will **not** happen:

- Web3 applications will fail to gain traction with a critical mass of users.
- Web3 fraud and security threats will loom large:
  - Successful hacks will make users fearful of using Web3.
- Regulators will stymie Web3 innovations with overregulation.



# Blockchain and Web3 Risks and Challenges



# Recommendations

- ④ Learn about the transparency and benefits afforded by:
  - Trackable, transparent and immutable blockchain transactions.
  - Fungible tokens (cryptocurrencies) and non-fungible tokens.
- ④ Assess your organization's opportunities to engage with digital currency for various use cases such as stored value, payments and investments.
- ④ Assess the business case, opportunities and risks involved with NFTs.
- ④ Stay abreast of regulations impacting your digital currency and NFT applications.
- ④ Outsource development of solutions by choosing among a wide range of service providers and off-the-shelf solutions available on the market.

# Recommended Gartner Research

- 🔍 [Quick Answer: What Is Blockchain?](#)  
Adrian Leow, Avivah Litan and Whit Andrews
- 🔍 [Hype Cycle for Blockchain and Web3, 2023](#)  
Adrian Leow, Avivah Litan, Homan Farahmand and Ray Valdes
- 🔍 [Quick Answer: How Are Decentralized Applications Different From Regular Apps?](#)  
Adrian Leow and Ray Valdes
- 🔍 [FAQ for NFTs on Blockchains and Web3 Ecosystems](#)  
Avivah Litan
- 🔍 [FAQ for Cryptocurrencies on Blockchains and Web3 Ecosystems](#)  
Avivah Litan
- 🔍 [Blockchain for the Board \(Presentation Slides\)](#)  
Whit Andrews, Avivah Litan and Adrian Leow

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