Step into Metaverse

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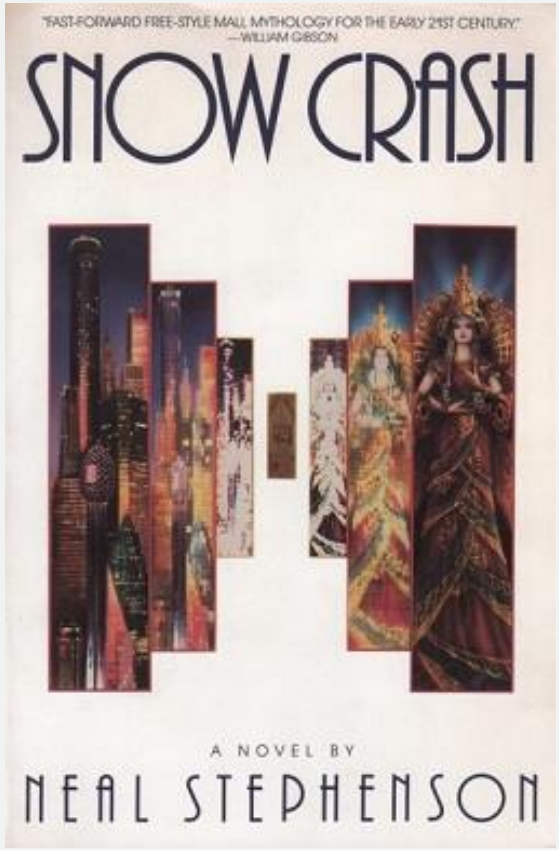
History of Metaverse

- The term "metaverse" originated in the ***Snow Crash,*** a science fiction novel by the American writer Neal Stephenson, published in **1992**



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History of Metaverse

- ***Second Life*** is an online multimedia platform that allows people to create an avatar for themselves and then interact with other users and user created content within a multi player online virtual world.

- Developed and owned by the San Francisco-based firm Linden Lab and launched on June 23, 2003

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What is Metaverse?

A single, shared, immersive, persistent, 3D virtual space
where humans experience life in ways they could not in the physical world

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Important components of Metaverse

AR & VR

Augmented reality
& Virtual reality

Digital Twins

Web 3.0

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AR & VR

Augmented Reality (AR):

An interactive experience combining the real world and computer-generated content

Virtual Reality (VR):

A simulated experience that employs pose tracking and 3D near-eye displays to give the user an immersive feel of a virtual world

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Meta Horizon Workrooms

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Virtual concert on Metaverse

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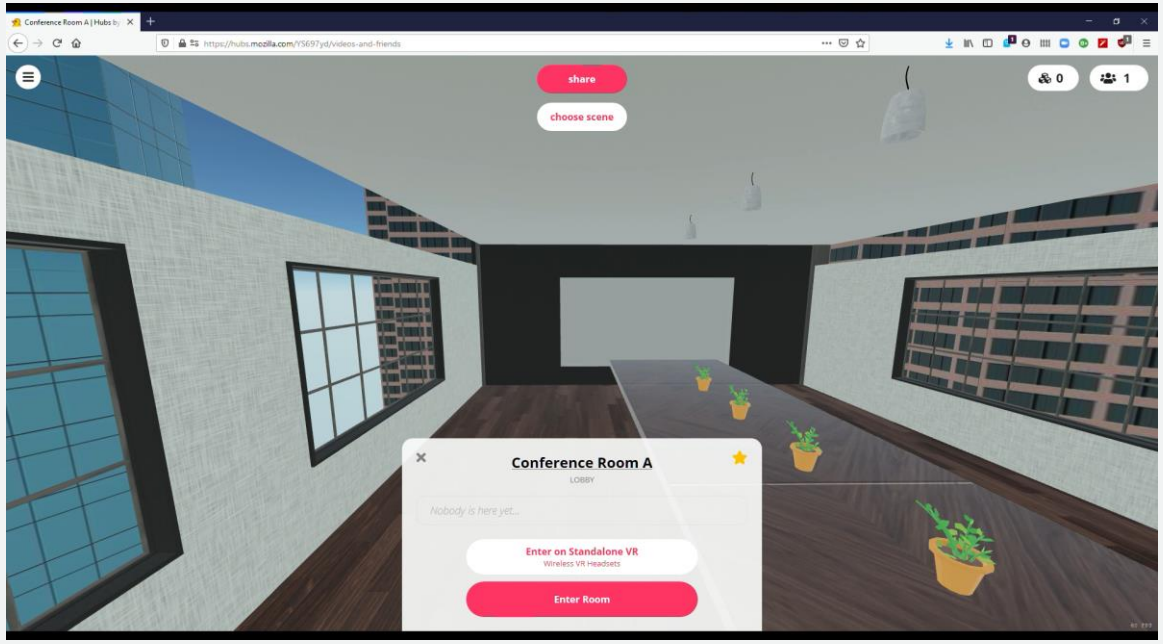
Hubs Cloud Enterprise on AWS Marketplace

hubs
cloud

- Create your own immersive collaborative spaces
  - Choose avatars, create private rooms with custom scenes and invite people to join
  - collaborate in exciting new ways using voice and text chat
  - media from around the web
  - interactive drawing tools



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Digital twins

- A virtual model or environment designed to accurately reflect a physical object in real world
- Large-scale – simulations to study multiple processes
- Two-way flow of information – allows real time data
- IoT-relevant

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Digital twins

CEDD - InnoTCE” of Tung Chung East Reclamation Project

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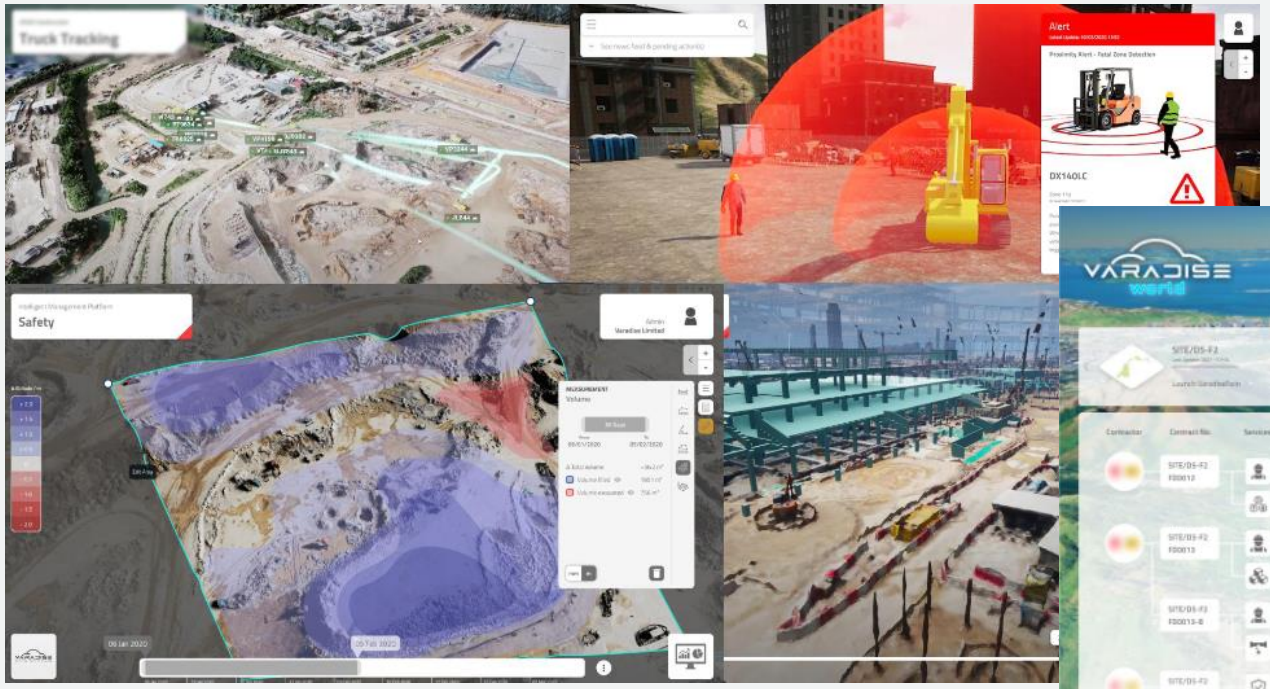
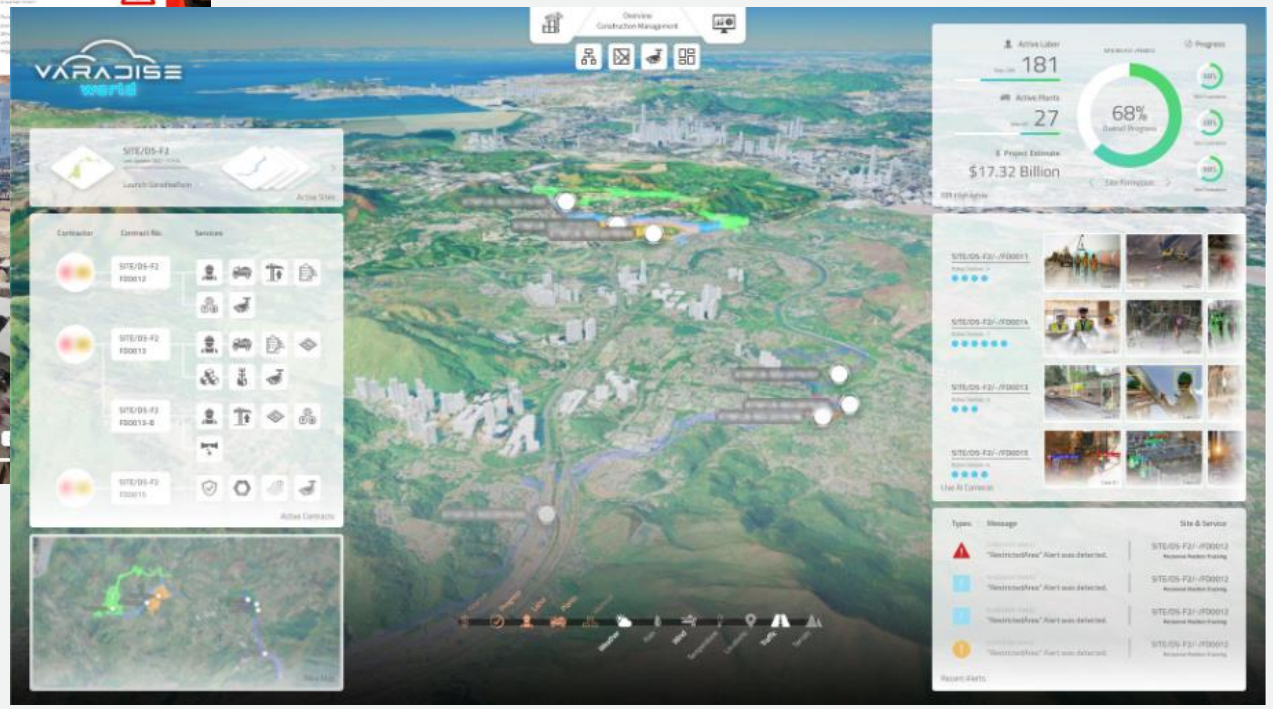
AWS partner - Varadise Limited



Smart Construction Management



Smart City

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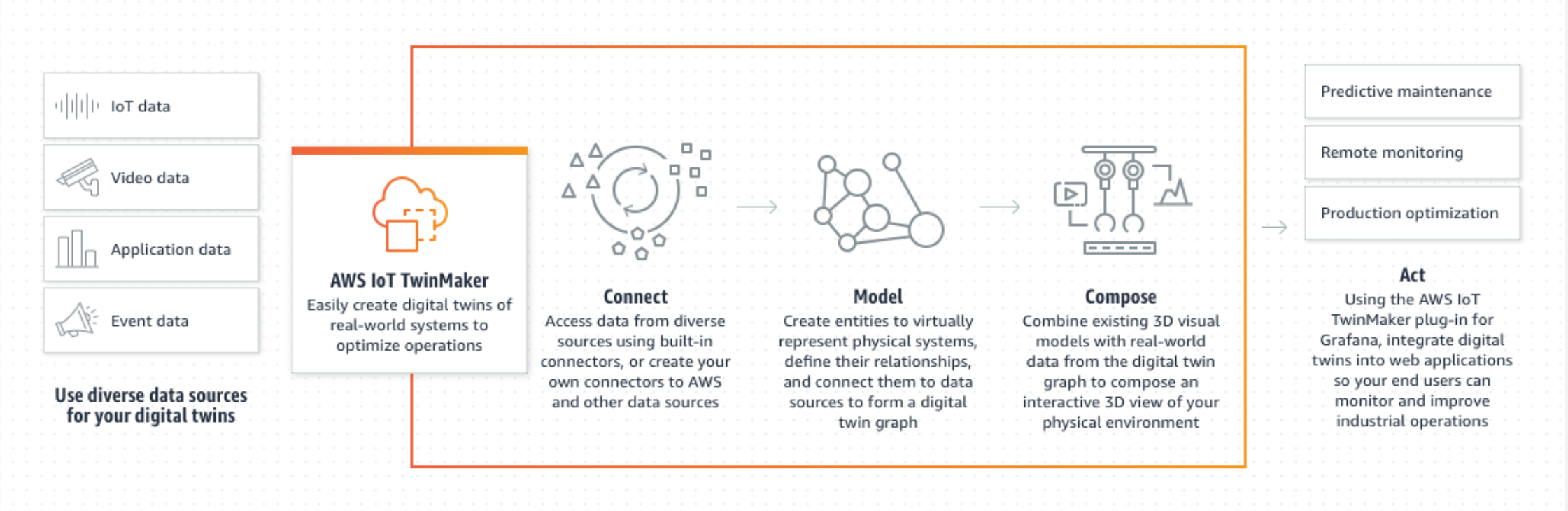
AWS IoT TwinMaker

- Allows developers to create digital twins of real-world systems such as buildings, factories, industrial equipment, and production lines
- Supported data source: e.g. equipment sensors, video feeds, and business applications



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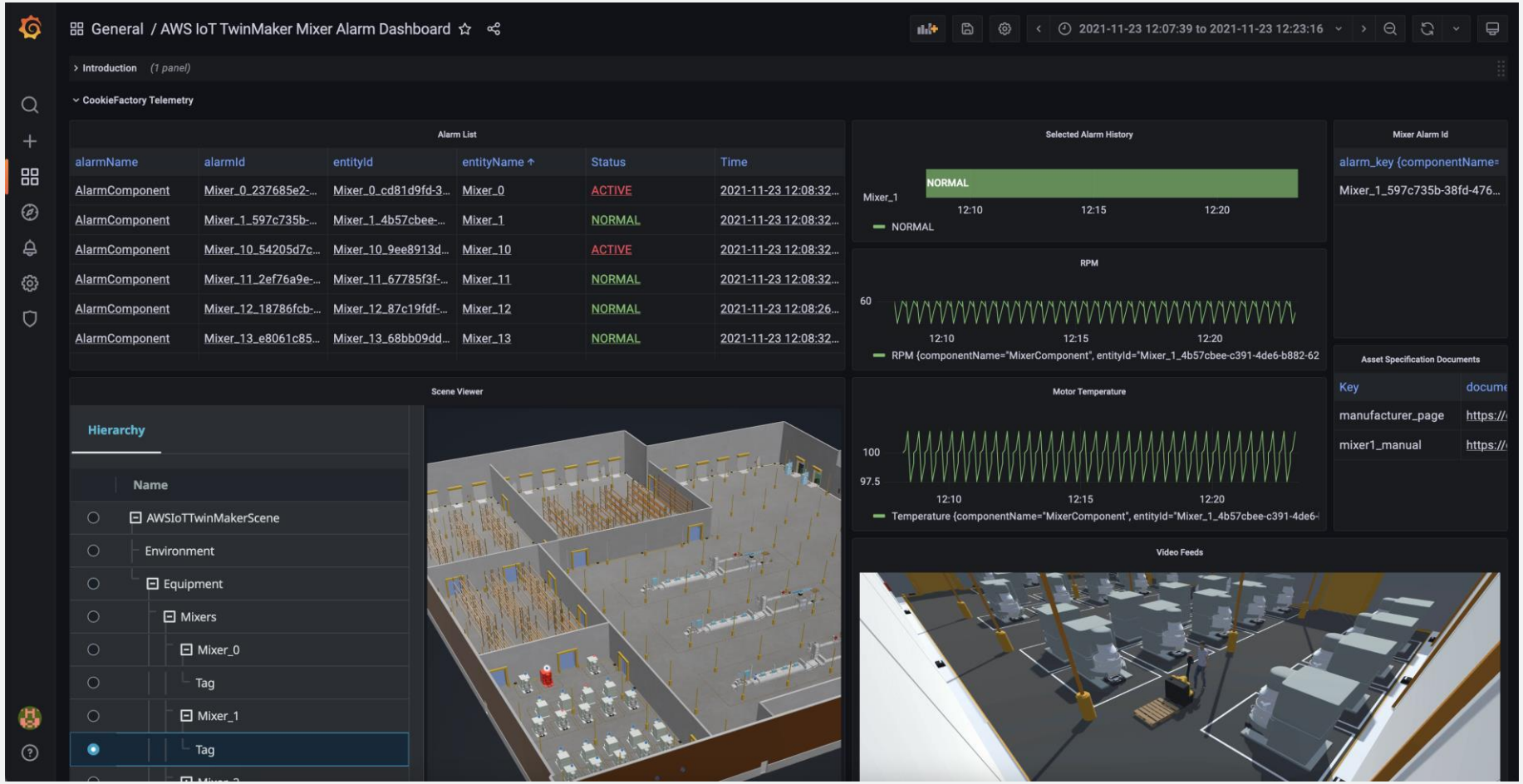
AWS IoT TwinMaker

Experience a Digital Twin dashboard



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What is Web3?

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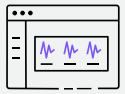
The Internet continues to evolve

Web1

Read Only



- Static Websites
- Portals
- Directories
- Email/Chat
- Physical Goods Marketplaces
- Low Bandwidth
- Limited Hardware

Yahoo, AOL, Pets.com

Web2

Read-Write

- Cloud
- Broadband
- Social Networking
- Mobile
- AI/ML
- SaaS
- Gig Economy

MySpace, Facebook, Twitter

Web3

Read-Write-Own

- Cryptocurrency/Blockchain
- AI/ML-as-a-Service
- Bioengineering
- Sensors/Wearables/ IoT
- AR/VR
- Space Manufacturing/Travel
- Self Sovereign Identity (SSI)

Bitcoin, Ethereum

Decentralized property rights:
Web3 gives people the ability to own their content on the Internet

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A STEVEN SPIELBERG FILM
READY PLAYER ONE

Digital Asset in Metaverse

What you have in Metaverse

Data under the hood

User_ID	Name	Email	Password
9527	Hei	hei@.....	**********
9527	Money	-	
9527	Vehicle	DMC – Back to the Future Theme	1
9527	Equipment	X1 Haptic BootSuit	1
9527	Item	Zemeckis Cube	2
9527	UNIQUE	COPPER KEY	-

So, how to solve the ownership issue?

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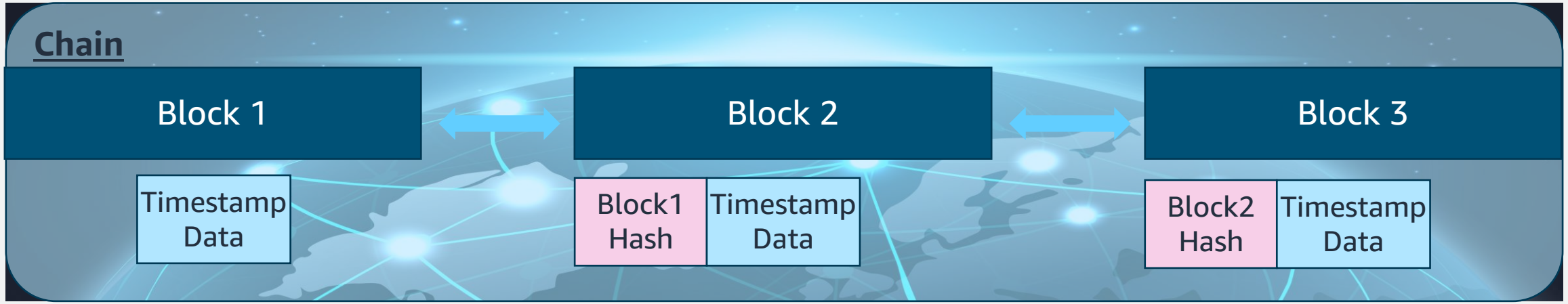
Blockchain Concepts - Chain

- A growing list of records, called blocks, which are **linked** using cryptography
- **Decentralized** and **Immutable**, which means the data entered is irreversible
- Viewable to anyone for **public** blockchain



Vecteezy.com

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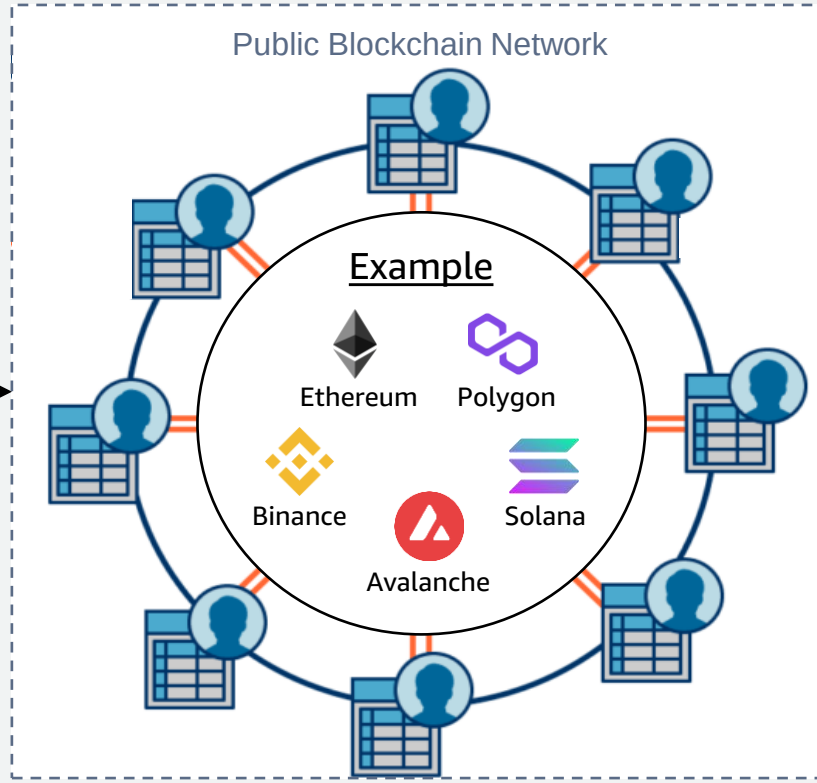
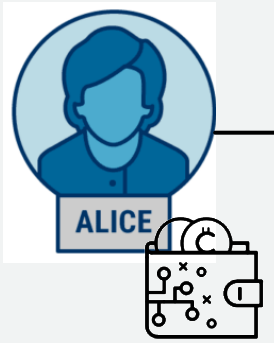
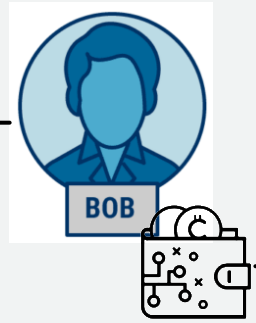
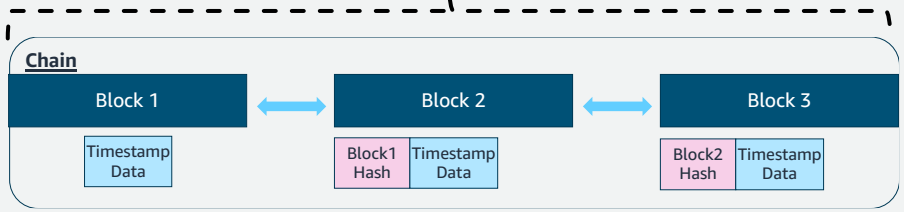
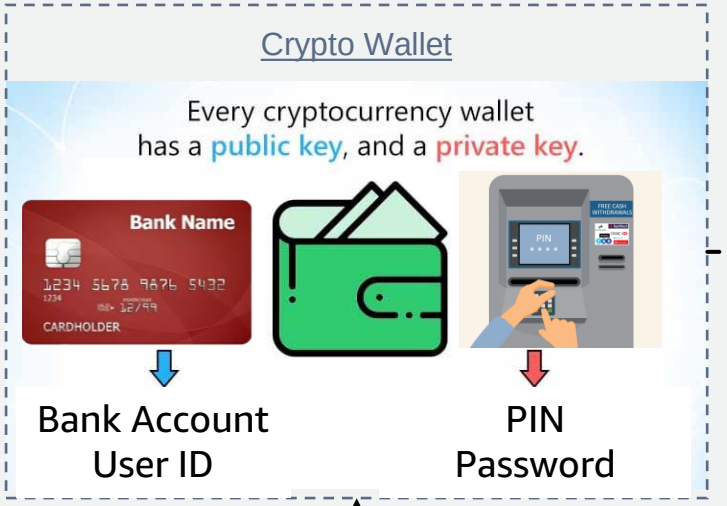
Blockchain, Wallet, Token











User_ID	ASSET_Type	ASSET_Name	Quantity
9527	Money	-	114500
9527	Vehicle	DMC – Back to the Future Theme	1
9527	Equipment	X1 Haptic BootSuit	1
9527	Item	Zemeckis Cube	2
9527	UNIQUE	COPPER KEY	-

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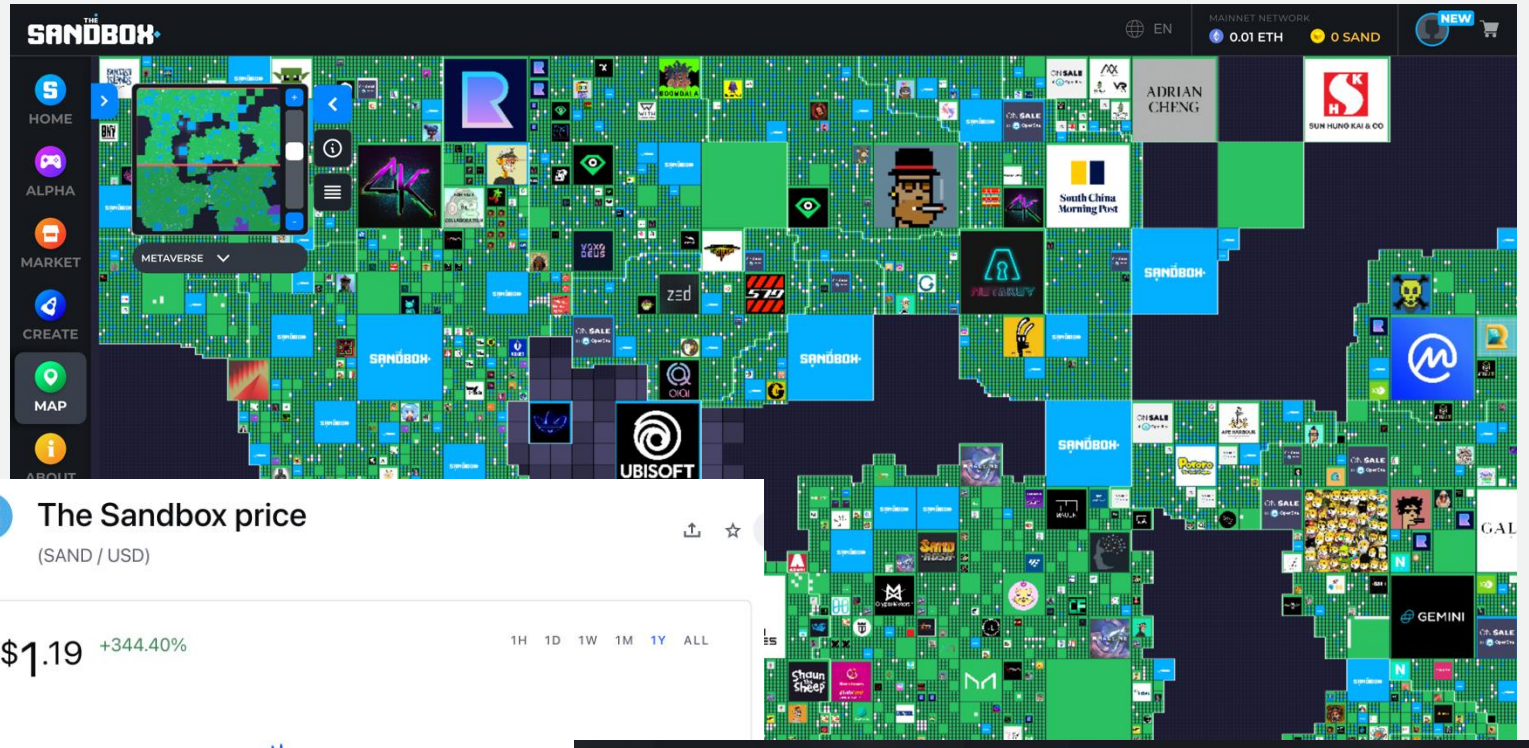
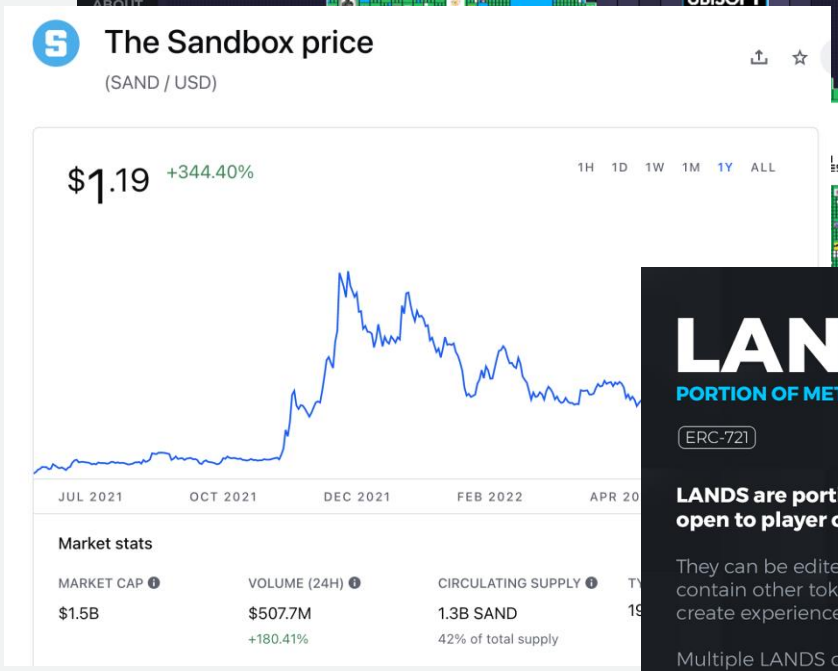
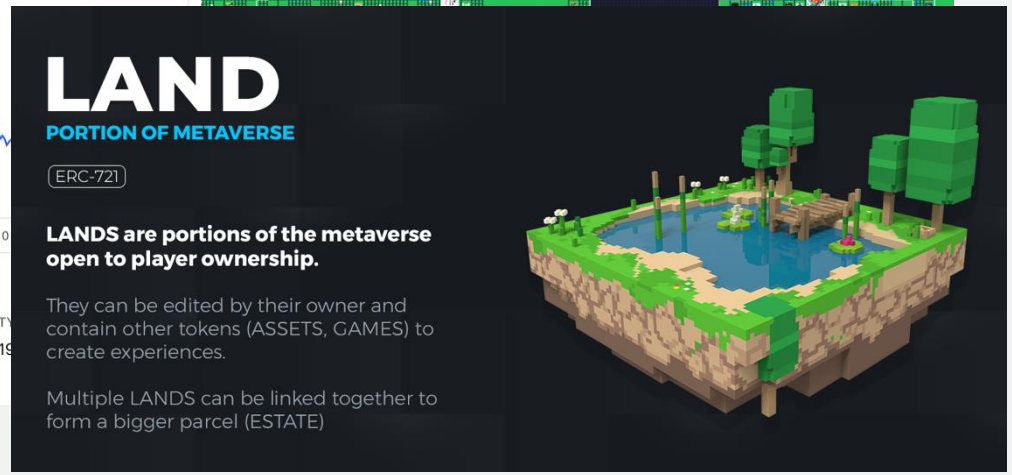
Metaverse on Web3

The Sandbox

- Virtual world where players can build, own, and monetize
- Digital Asset
  - SAND: utility token
  - LAND: unique digital piece of real-estate
- Tradable outside (eg. Binance, OpenSea)







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Every Industry Giant is embracing The Sandbox

【元宇宙】匯豐夥The Sandbox　進軍元宇宙買虛擬土地

科技 13:04 2022/03/17

【虛擬世界】香港難再買實體土地？新世界鄭志剛投資Sandbox兼獲最大虛擬土地

Business Digest Editorial
2021年12月9日 · 1 分鐘文章

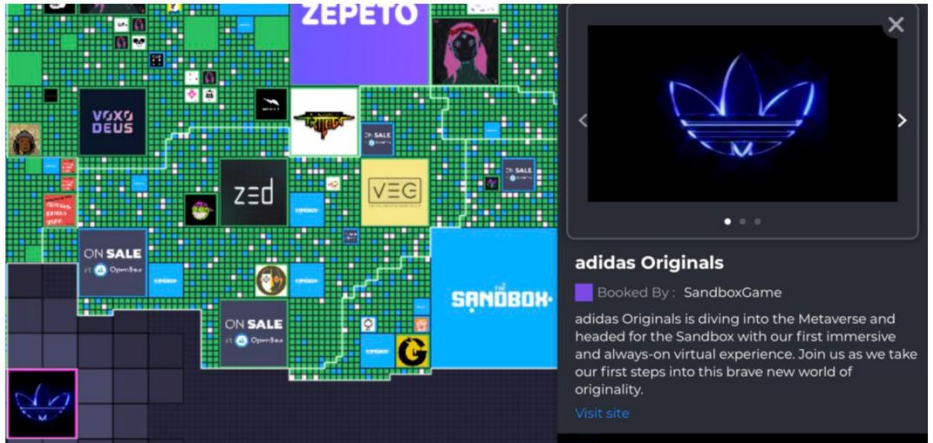
港鐵進駐Sandbox 虛擬土地建車站

By StartupBeat on April 21, 2022

港鐵聲稱是全球首個進駐The Sandbox元宇宙的交通營運商。(The Sandbox網上圖片)

Adidas登陸The Sandbox元宇宙，SAND30日內暴漲超600%

by Joe — 2021-11-23 in nft, 加密貨幣市場, 區塊鏈商業應用 0



新鴻基投資 The Sandbox 進軍元宇宙房地產 公司逆市升逾一成

頭條, 商業, 本土

POSTED ON 2021-11-30 BY AARON LAM

【海洋公園】海洋公園與The Sandbox成合作夥伴　推具海洋公園特色的NFT內容及產品

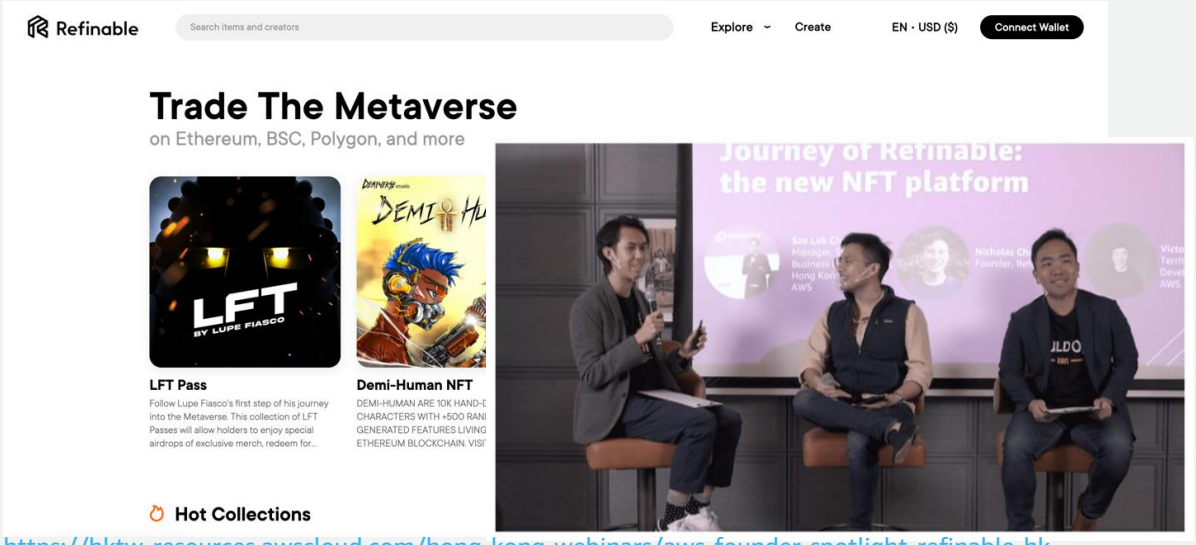
Hot Talk 11:26 2022/02/14

AlloTSB
100/100
Release-WindowsPlayer-0.7.1.0-2022082619-
Hong Kong's Star Ferry Pier
-3, 6
2x2
Level 2
37/40 EP Earned
RESCUE THE OLDMAN
[1 EP] Reach the old man to rescue him from the jellyfish.
1/1
Your Best Time 00h:00m:11s:090ms
Old Man x1
Metaverse
Q Quests
I Inventory
N NFTs
H Hub
O Options

Metaverse on AWS Local Case Study

Refinable https://refinable.com/

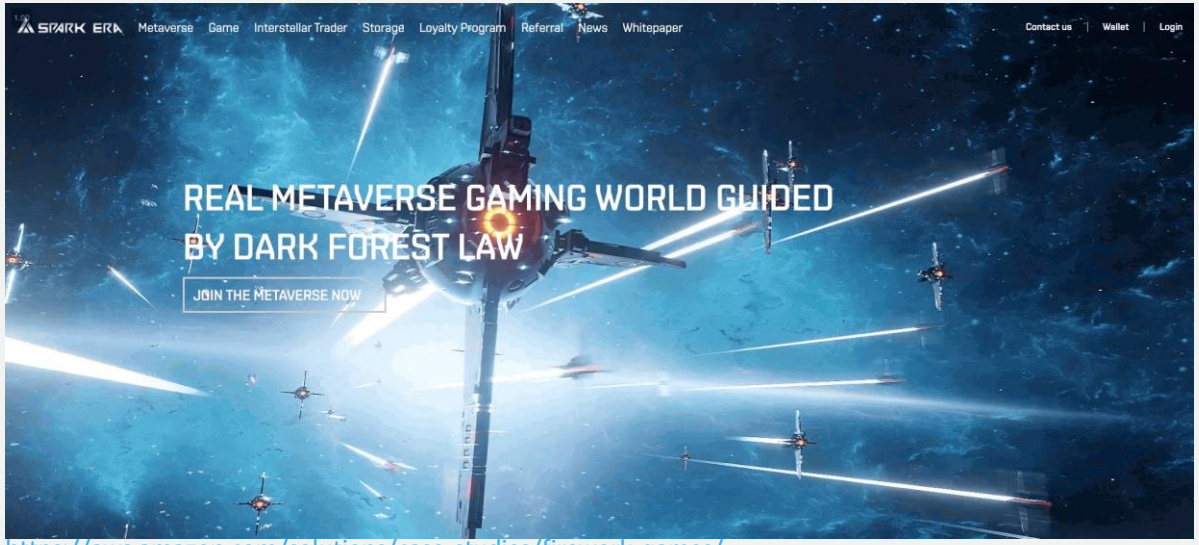
- **NFT Marketplace** on Ethereum, BNB Chain, Polygon and Solana
- Support SaaS solution for setup custom storefront



https://hktw-resources.awscloud.com/hong-kong-webinars/aws-founder-spotlight-refinable-hk

Firework Games https://www.firework.games/

- **Spark Era –** Metaverse game based on an interstellar background
- Integrate Deep Learning Model to power the AI-enhanced NPCs



https://aws.amazon.com/solutions/case-studies/firework-games/

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Metaverse is Long-Term

Hardware

Technology

Knowledge

Privacy

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Scan and fill complete the survey now

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