

1. Introduction

This whitepaper outlines the technical steps required for developers to create a Non-Player Entity (NPE) tra

2. Overview of Technologies

- Meta Horizon Worlds: A VR platform allowing creators to build interactive experiences.
- launchCheckoutFlow(player, sku): A function to initiate in-world purchases using Meta's billing system.
- Vincent (LitProtocol): A decentralized framework for secure transaction signing using Programmable Key F
- Rarible: A decentralized NFT marketplace supporting Ethereum and other blockchains.

3. Step-by-Step Integration

Step 1: Setup SKU in Meta Creator Commerce

- Register a virtual item (e.g., "gold_dragon_nft") in Meta's Creator Commerce portal.
- Obtain the SKU ID for use in Horizon scripting.

Step 2: Script NPE Interaction in Horizon Worlds

- Create an NPE that listens for player interaction.
- Use the following pseudocode:

```
onInteract(player) {
    launchCheckoutFlow(player, "gold_dragon_nft_sku")
    sendWebhook("https://yourserver.com/nft-intent", {
        playerID: player.id,
        nftID: "gold_dragon_001"
    })
}
```

Step 3: Backend Server to Handle NFT Intent

- Deploy a server to receive webhook requests.
- Use Vincent SDK to sign and broadcast NFT transactions:

```
import { getVincentAbilityClient } from '@lit-protocol/vincent-app-sdk/abilityClient';
import { bundledVincentAbility } from '@lit-protocol/vincent-ability-evm-transaction-signer';
```

```
const abilityClient = getVincentAbilityClient({
    bundledVincentAbility,
    ethersSigner: yourSigner,
});

const serializedTx = ethers.utils.serializeTransaction({
    to: nftContractAddress,
    data: mintFunctionData,
    chainId: 1,
    nonce: 0,
    gasPrice: '0x...',
    gasLimit: '0x...',
});
}

const executeResult = await abilityClient.execute(
    { serializedTransaction: serializedTx },
```

Using an NPE to Launch an NFT Purchase in Meta Horizon Worlds and Facilitating the Transaction with Vincent

1. Overview

To enable this paper, ill enable an úctindigital asset purchases via Non-Player Entities (NPEs) in Meta Horizon Worlds, using `launchCheckoutFlow(player, sku)` function to facilitate a backend transaction using Vincent, a non-cusodal wallet controlled by Programmable Key Rairs (PKPs), and execute the actual NFT transaction on Rarible, an NFT marketplace.

