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Esports and Blockchain

The gaming and e-sports industry has been on the rise for several years now. And while virtually every game already has some form of in-game currency to incentivize players to play longer, tokenizing in-game currency on a blockchain can increase the efficiency and improve the tracking of in-game rewards, better incentivize player engagement with the game (which can translate into more play time), and increase game security. This blogpost focuses on increasing the efficiency and tracking of in-game rewards.

Tokenization is particularly helpful within the context of Massive Multi-Player Role Playing Games ("**MMRPGs**"), where players are playing at all times of the day across all corners of the world. By recording the creation and trades of in-game items on the blockchain (i.e., by tokenizing the in-game currency and using smart contracts), players are able to verify, add value, and track who has held which in-game assets.

In MMRPGs, the in-game assets are akin to nonfungible tokens (e.g., Cryptokitties) on a blockchain. Using nonfungible tokens to represent in-game assets enables players to effect multiple simultaneous trades. Additionally, nonfungible tokens allow players to see which players have held a specific item at any given time (i.e., a token's provenance). This provenance information adds value to the token by establishing who has held the in-game item. For example, imagine if an in-game asset has been in the possession of a celebrity, that particular asset will hold greater value than the same item that has not been held by a celebrity.

Further, several games allow players to create and sell in-game items (e.g., user-created hats within Valve games). Through the tokenization of in-game items, attribution automatically follows the item. Smart contracts can facilitate the payment of a royalty to the item creator each time the item is purchased or sold. Accordingly, tokenization provides some control and value back to the players. Further, since the in-game items only have value within the game, tokenization also incentivizes greater game play and builds the community surrounding a game, which is a win for the game publisher.

In addition to facilitating the transfer of provenance information, blockchain and smart contracts can help facilitate more efficient trades of in-game items. Sending different trades as individual transactions may take some time given the current state of blockchain technology. This makes it inefficient and cumbersome to administer for a player who needs to deploy a separate smart contract for each individual trade.

Using the ERC 1155 token protocol, players may bundle different transfers of in-game items. By contrast, using an ERC-20 or ERC-721, there are four separate transactions that must take place in order to effect a trade. This is inefficient as it wastes data and energy, and each transaction must be approved and independently added to a block.

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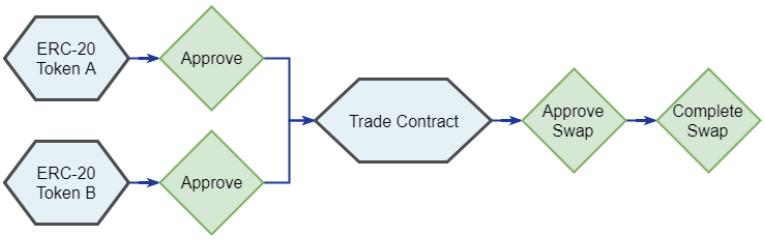

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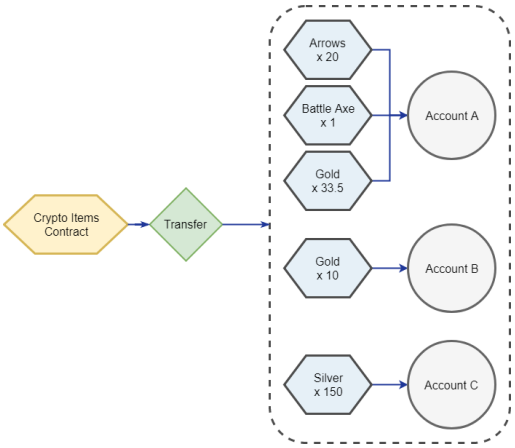
Deployment and use of the ERC 1155 (https://github.com/ethereum/eips/issues/1155) protocol on the Ethereum platform , therefore, allows multiple in-game items to be transferred to different players within one smart contract and one transaction.



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In sum, appropriate token protocols on the Ethereum blockchain platform technology can help make transactions of in-game items more efficient, while adding and tracking value.

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