Block Chain and Its Applications

**Blockchain in Gaming Industry**

In 21st century, blockchain technology is starting to grow in different industries but now it keeps his hand in the gaming industries also. It has the potential to make the gaming industry more secure and transparent as well as ownership on gaming assests and bring new monetization models. In this report we will talk about the current state of blockchain in gaming sector, its potential benefits and some of the challenges and limitations that needs to be addressed.

**Current state of blockchain in gaming:**

Though the inclusion of blockchain in gaming industry is a new concept, there are several projects ongoing to improve various fields of gaming. The first and notable example is Cryptokitties; this is a game based on blockchain where player can collect, breed and trade virtual cats where each cat is unique and different that gives the players true ownership.

Another example we can give is Enjin. People can manage and build their gaming assets by using blockchain. Those assets can sold to the Enjin marketplace that gives the game developers a new way of monetization of their gaming industries.

**Potential benefits of blockchain in gaming:**

For the gaming business, blockchain technology presents a number of potential advantages. Being able to offer actual ownership of in-game assets is one of the main advantages. The majority of in-game items currently belong to the game's creators, and players have no authority over them. By transferring ownership to the players through blockchain, they can sell or trade their assets as they see fit.

Enhanced security and transparency are other advantages of blockchain in the gaming industry. Since blockchain transactions are unchangeable, it cannot be theft. Because of this, it is considerably more difficult for hackers to steal in-game things or carry out other nefarious deeds. Moreover, blockchain can offer transparency in the form of accessible public ledgers, facilitating player ownership tracking and verification.

Blockchain technology has the ability to revolutionize the gaming industry in many ways. Here are some ways in which blockchain can make a significant impact:

1. Real Ownership of In-Game Assets: Today, players have no authority over the majority of in-game assets, which are controlled by the game's creators. By transferring ownership to the players through blockchain, they can sell or trade their assets as they see fit. This might generate additional cash for users and result in the growth of a brand-new gaming economy.
2. More Security: By utilising distributed ledger technology and encryption, blockchain can boost the security of in-game transactions. Because of this, it is considerably more difficult for hackers to steal in-game things or carry out other nefarious deeds.
3. Transparency: As blockchain transactions are permanent, they cannot be changed or eliminated. Players will find it simpler to trace and confirm the ownership of in-game assets thanks to the transparency this offers in the form of open and public ledgers.
4. Alternative Monetization Features: Blockchain can make it possible for users and game producers to monetize in new ways. A blockchain-based platform called Enjin, for instance, enables game developers to build and manage in-game assets like armour, guns, and other stuff. The Enjin Marketplace offers a new opportunity for gamers to monetise their gaming experience by allowing trading and selling of these assets.
5. Decentralization: Blockchain can make game development and distribution decentralised. Blockchain technology allows game makers to avoid conventional publishers and sell their products directly to users. This might encourage greater variety and creativity in the gaming sector.

As a result of its actual ownership of in-game assets, enhanced security and transparency, new monetization models, and decentralization, blockchain has the potential to have a huge impact on the gaming industry. As the technology continues to develop and mature, we should expect to see more blockchain-based games and platforms emerge in the future years.

**Challenges and Limitations:**

Before blockchain can be widely used in the gaming business, there are a number of obstacles and restrictions that need to be overcome in addition to the potential advantages. Scalability is one of the main obstacles. Currently, the majority of blockchain systems have restricted capacity, which means they can only process a specific amount of transactions per second. For games with a huge player base or many transactions, this might be a serious restriction.

User adoption presents another difficulty. Blockchain is still a young technology, thus it might not be well known to many players. Also, some players may be turned off by the complexity of using the blockchain to acquire and sell in-game goods compared to more conventional means.

**Conclusion:**

In conclusion, blockchain technology has the potential to revolutionize the gaming sector by enabling actual in-game asset ownership, greater security and transparency. Before blockchain is extensively used in the gaming business, there are a few obstacles and restrictions that must be overcome. In the upcoming years, we may anticipate the emergence of additional blockchain-based platforms and games thanks to ongoing innovation and development.