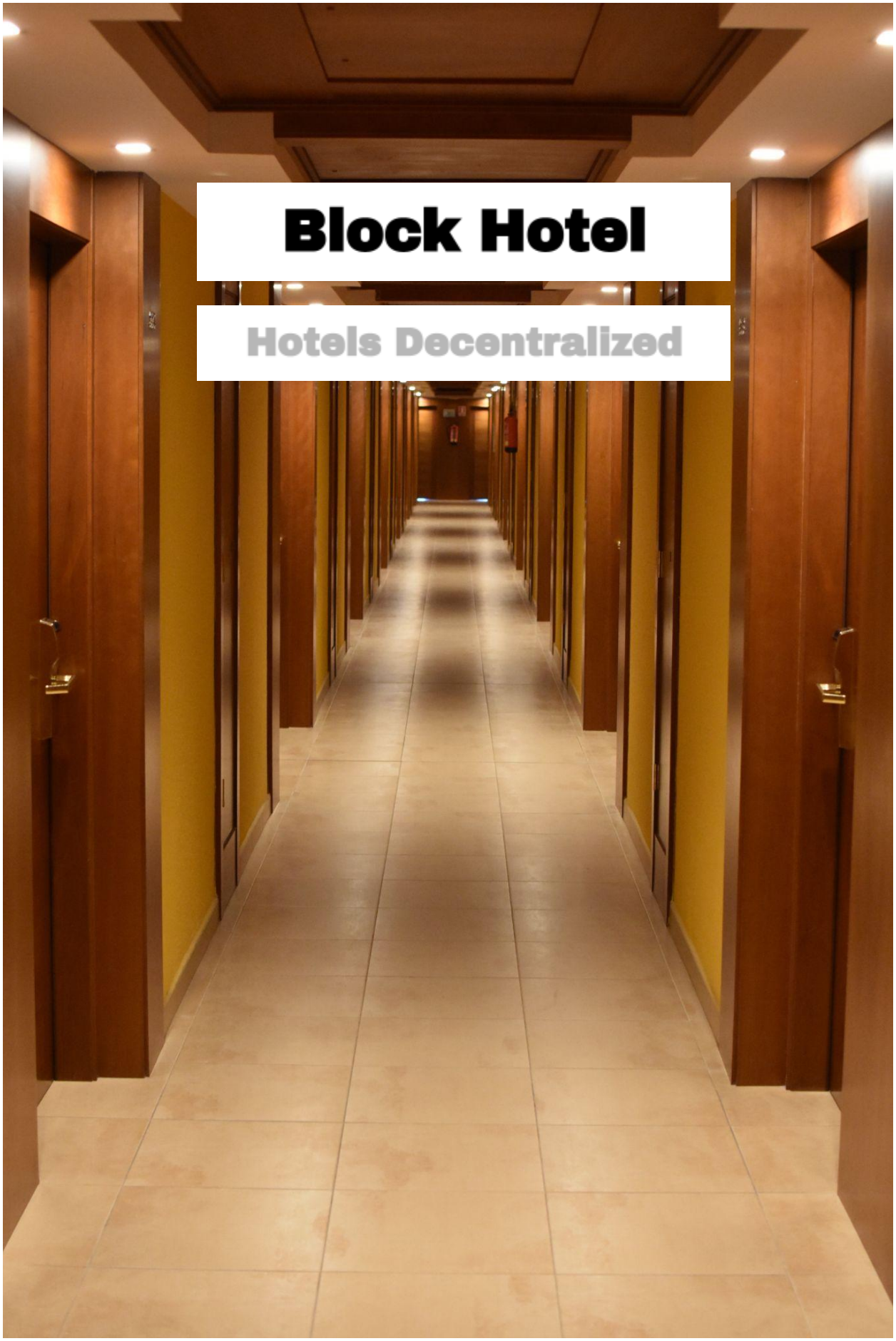
Block Hotel
Hotels Decentralized

BLOCK HOTEL

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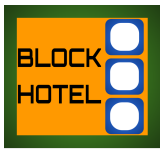

BLOCK HOTEL

Block Hotel

Hotels Decentralized

Introduction

The following paper has been prepared to describe in detail the Block Hotel concept. This paper will cover the business aspects of Block Hotel and how it will transform the way that hotels are done around the world.

What is Block Hotel?

Block Hotel is a decentralized platform built on EOS that enables hotels to convert their room inventory into Hotel Bearer Tokens (HBTs) implemented as NFTs. These HBTs are configurable, composable and openly tradeable. This allows for the creation of on-chain rule bound Hotel stays, creation of bespoke travel packages, the use of travel stays in DeFi and receipt of transfer royalties by Hotels, a revenue stream that is not available to today.

The goal of Block Hotel is to create a system where travelers can be afforded a variety of exciting new booking options as well as use of a brand new DeFi primitives. With Hotels being afforded new ways to maximize their revenue, whilst simultaneously reducing their financial operating risks.

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The Challenge

Today travelers face the growing problem of rising travel costs and increasingly inflexible travel options. Even with digital technology providing a plethora of high speed solutions, for the cash strapped traveler, booking a non-refundable excursion can prove disastrous in the face of sudden changes.

Added to this travel insurance reimbursement times are inordinately long[1]. On the service provider front the situation is more grim, Hotels are facing increasingly smarter digital travelers that book, hog and cancel at the last minute forcing the hotels to dispose of late breaking inventory at discounted prices.

To combat this, Hotels have resorted to pricing inflexible offerings at cheaper price points than flexible ones, as well as relying heavily on Online Travel Agencies to dispose of unsold inventory, consequently resulting from losses in terms of commissions and price drops. Along with the increasing incidence of travel impacting events such as pandemics and war it makes for serious challenges to the hotel industry specifically.

[1] https://www.financial-ombudsman.org.uk/consumers/complaints-can-help/insurance/travel-insurance, accessed 29/10/2022

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The Block Hotel Solution

Block Hotel offers a solution that enables hotels and travelers to exit the above quandary by utilizing blockchain technology to intermediate concerns enabling both Travelers and Hotels to minimize their risks in the face of sudden changes.

The solution also creates the basis of a new kind of DeFi primitive. This DeFi primitive can be leveraged by Guests and Travelers to enable them to find flexible ways of balancing their travel plans against their regular day to day activities. It also opens a new way for hotels to provide a greater level of operational stability in the face of challenging times. The Figure (**Figure - Block Hotel - Hotel Bearer Token Lifecycle**) below describes the lifecycle of a typical Hotel Bearer Token

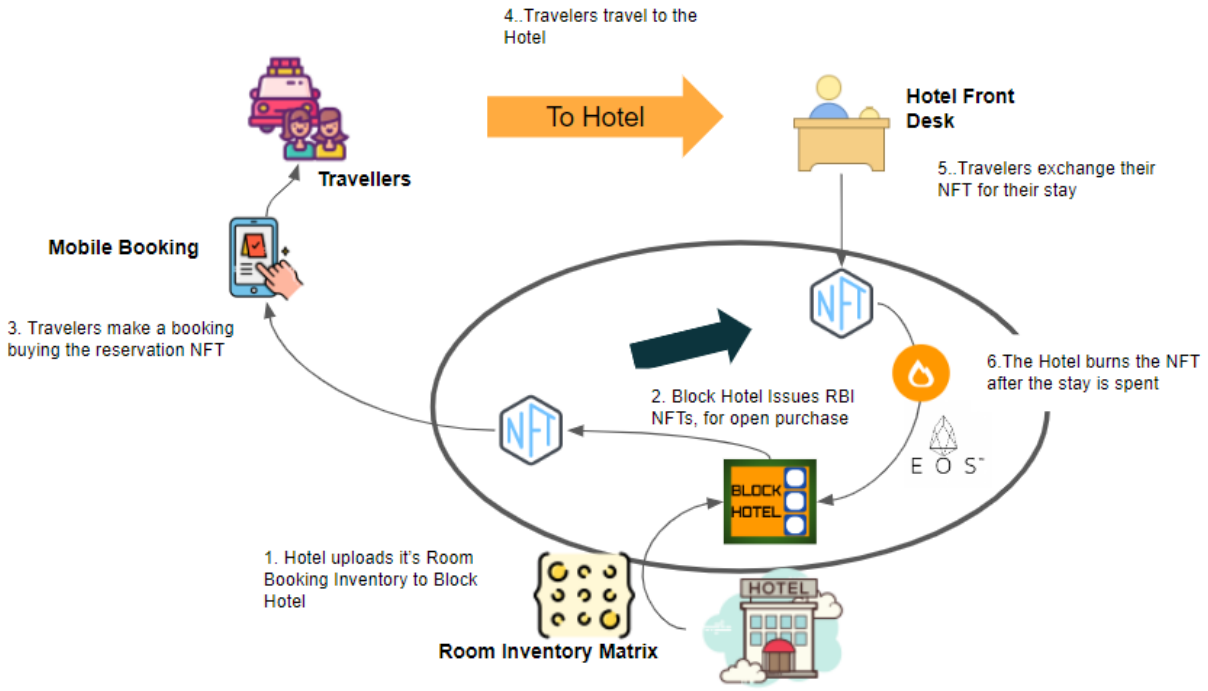


Figure - Block Hotel - Hotel Bearer Token (HBT) Lifecycle

Inventory as NFTs

Block Hotel works by converting the inventory of a Hotel (i.e the. room space + occupancy dates) Hotel Bearer Tokens (HBTs) implemented as NFTs. These Bearer Tokens represent the various inventory configurations that a Hotel might create, so for example for the same space and occupancy dates a Hotel might allow access to different levels and types of amenities such as in Room & Hotel wide Netflix access.

Block Hotel enables a Hotel to issue these configurations to various sales channels such as Travel Warehouses, Online Travel Agents (OTAs) and even direct to travelers through on chain token delivery. This is illustrated in the Figure (**Figure - Block Hotel - Inventory as Hotel Bearer Tokens**) below.

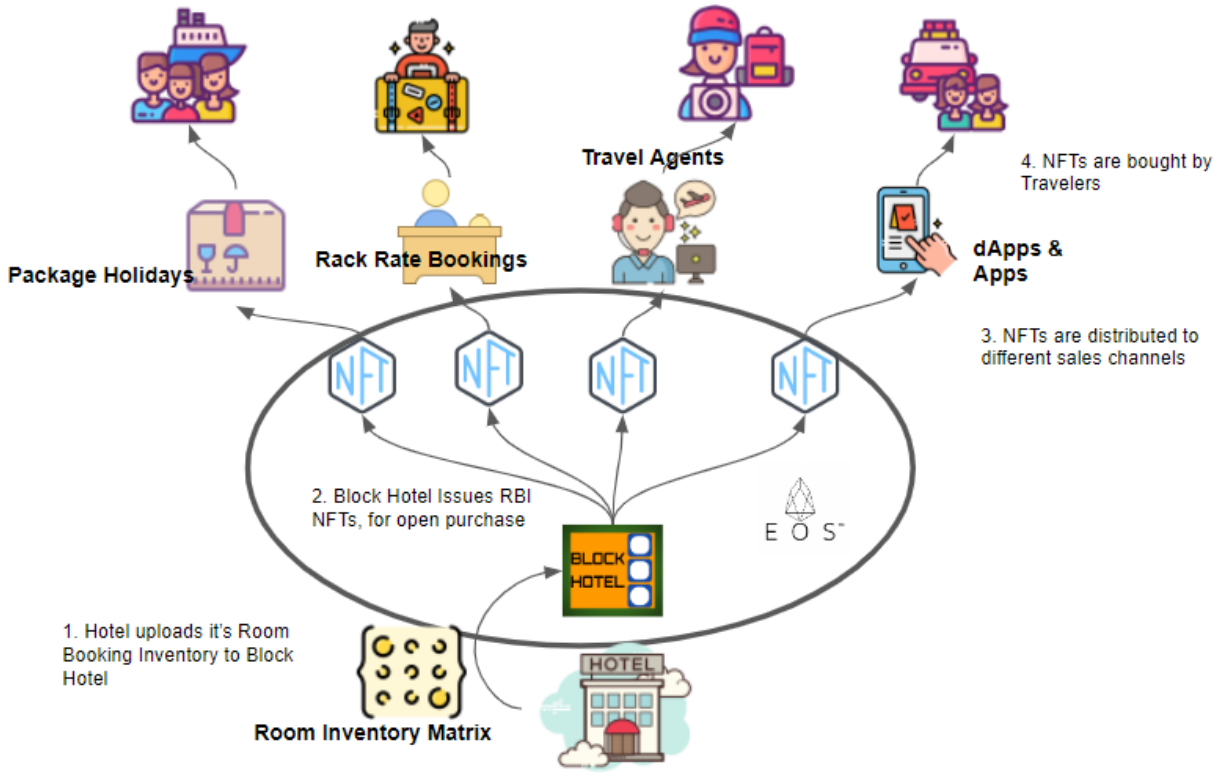


Figure - Block Hotel - Inventory as Hotel Bearer Tokens

Royalties on Inventory

Once issued the inventory configuration of each Hotel Bearer Token becomes permanent and immutable. As the Hotel Bearer Token is passed down the value chain to the final traveler each transaction is designed to incur a nominal royalty fee that is sent directly back to the issuing Hotel augmenting the early revenue received from first sale.

Guess & Traveler flexibility

Once purchased by the traveler, the Hotel Bearer Token and its stay configuration are owned by the traveler. This means that once issued the Hotel has no way to interdict or recall the Hotel

Bearer Token without the explicit participation of the current holder. This enables the Hotel Bearer Tokens to be freely tradeable on the open market.

Thus in the face of a plan change the guest, traveler and/or value chain intermediary will be able to simply resell their Hotel Bearer Token(s) on any decentralized travel market place or on chain exchange venue at profit or at loss. This is illustrated in the Figure (**Figure - Block Hotel - Traveller Flexibility**) below.

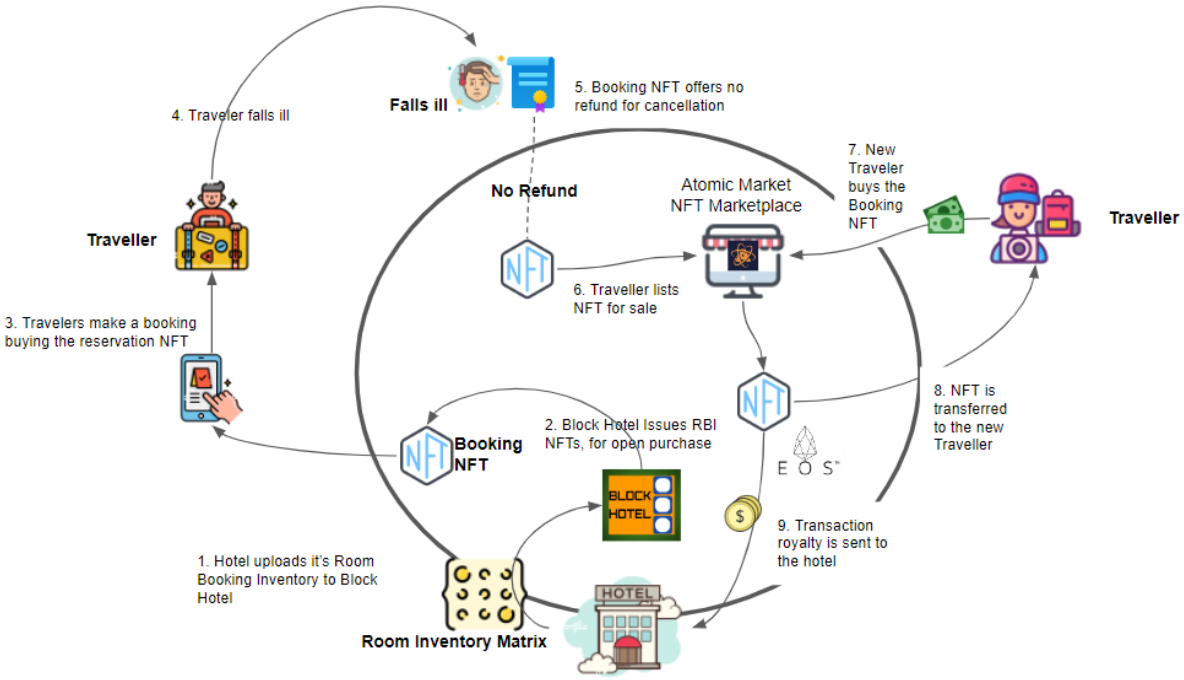
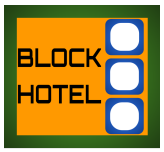


Figure - Block Hotel - Traveller Flexibility



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Why Now

For the travel industry the incidence of industry impacting events has grown phenomenally in present times, from September 11th closing the skies to the Icelandic ash cloud and more recently the COVID pandemic. This has led to travel venues being exposed to previously unheard of risks to their operation. Many of these risks reside in the murky and legally difficult realm of “force majeure,” hence making insurance claims protracted and more a matter of public sentiment.

Hence for the typical Hotel a more practical and faster acting solution is required that helps a Hotel to guarantee it’s revenue whilst at the same time providing the needed transparency to manage incident overheads quickly and efficiently.

For the Guest and the Traveler similarly faced with this level of disruption, and simultaneously impacted by economic calamities such as the 2008 banking crisis and more recently the “Cost of Living " crisis, the ability to make and change plans at low cost is now more vital than ever.

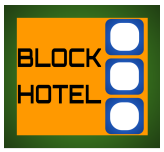
Market Size

The UK accommodation industry is worth over £16.4 billion[2] at an average occupancy rate of 70%[3], this represents a missed revenue opportunity of approximately £6.8 billion, in the United Kingdom alone. In the US the market size is US$171.1 billion at an average occupancy rate of 57.6% which represents a missed market opportunity of approximately USD$125.9 billion. These two markets represent a sizable market opportunity that would bring significant financial stability to the blockchain and cryptocurrency ecosystem.

The global accommodation market is forecast to reach $1.9 trillion in 2034. The market was valued at $632.8 billion on 2021[4].

The goal of Block Hotel will be to seize upon this growing market enabling a new type of Hotel travel experience.

[2] https://www.ibisworld.com/united-kingdom/market-size/hotels/, accessed 29/10/2022
[3] https://www.statista.com/statistics/473271/occupancy-rate-hotels-uk/, accessed 29/10/2022
[4] https://www.alliedmarketresearch.com/travel-accommodation-market, accessed 29/10/2022



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Appendix

Technical Considerations

The following are the technical considerations that would need to be deliberated:

Operations

The primary considerations for operations would be the following:

- EOS latency at scale - the view is that Block Hotel would aim to secure 1 or 2 major hotel chains as partners each with thousands of rooms, for a duration of 12 months. Hence the latency that is incurred when the blockchain is being used heavily as an operational system needs to be considered
- Error management - error handling options available on EOS would have to be considered as users are known to find outlier cases and unlike with Web2 redeployment of code that may have tokens flowing through it is a non-trivial task.
- Blockchain monitoring Tools - Apart from standard EOS monitoring tools being employed additional tools specific to Block Hotel will need to be developed.

Finance

The following are some of the technical financial considerations that need to be borne in mind for the Block Hotel implementation:

- EOS staking requirements will need to be considered with respect to onboarding hotels and determining their service consumption costs.
- Additionally the fiat onramp/offramp support for EOS for travelers and hotels will need to be considered as this may necessitate the establishment of banking relationships in operational jurisdictions.

Tech

The following are some of the technology considerations that need to be borne in mind for the Block hotel implementation:

- Provision of APIs to interact with the EOS blockchain will need to be considered for those hotels and partners that opt not to integrate directly with the blockchain
- Security on the EOS blockchain is a big consideration as the targeted volume of transactions and capital even at the pilot is significant.
- Scalability testing to meet the transaction throughput anticipated in the first year will need to be done extensively on the EOS testnet