



## THE CONNECTED VISITOR ECONOMY BULLETIN



February 2018

# A REVOLUTION IS COMING TO THE TRAVEL INDUSTRY

*Blockchain technology is transforming the travel business, here's how.*

## THE MERCHANT EXCHANGE: A BRIEF HISTORY

Merchants, throughout time, travelled far and wide to trade their goods. Unaccountable goods and a lack of trust has challenged merchants throughout history until the 14th century when an ingenious system was invented in Italy to solve this problem. The solution, as we know it today is called “double entry bookkeeping”<sup>1</sup>. In order for it to work, this system required at least two ledgers. For every entry into an account, a corresponding, opposite, entry to a different account would be recorded.

<sup>1</sup>[https://en.wikipedia.org/wiki/Double-entry\\_bookkeeping\\_system](https://en.wikipedia.org/wiki/Double-entry_bookkeeping_system)



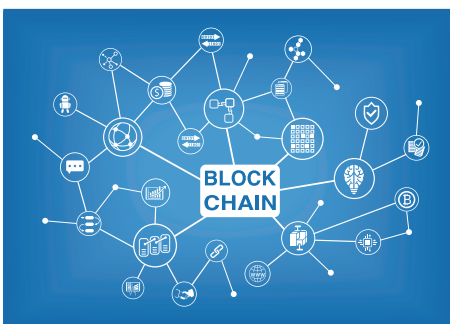
Today, this system is called accounts receivable and accounts payable on a general ledger. Previously, merchants hauled cumbersome record books and each party noted down the credit and corresponding debit for their respective transactions. Prior to leaving the meeting, the merchants would ensure both books had the same amount of credits and debits. If something did not add up later, it was a tell-tale sign of foul play.

Despite efforts, a lack of trust persisted. Consequently, merchants agreed to use an impartial, trusted, middleman to oversee the proceedings. For a fee, the middleman would keep his own ledger of all credits and debits between the two merchants. If suspicious, the middleman could report who was committing foul play.

This system resolved many issues for the merchants. Adding the trusted middleman is now known as “Byzantine Generals Problem”<sup>2</sup>.

Trading has been conducted this way for centuries. As a result, middlemen became wealthy and influential. Today, middlemen are our banks: intermediaries to most transactions that take a small fee whenever money changes hands. Banks are the most powerful institutions in the world because of the power vested in them.

## WHAT IS THE BLOCKCHAIN?



Today there a new way to securely conduct business without a third party: it is called the blockchain<sup>3</sup>. The blockchain is a public, distributed, decentralised ledger with thousands of computers (middlemen) whose sole responsibility is to write down transactions and confirm that a transaction between two parties took place. Once the confirmations are in, it is irreversible and unchangeable.

<sup>2</sup>[https://en.wikipedia.org/wiki/Byzantine\\_fault\\_tolerance#Byzantine\\_Generals' Problem](https://en.wikipedia.org/wiki/Byzantine_fault_tolerance#Byzantine_Generals'_Problem)

<sup>3</sup><https://en.wikipedia.org/wiki/Blockchain>



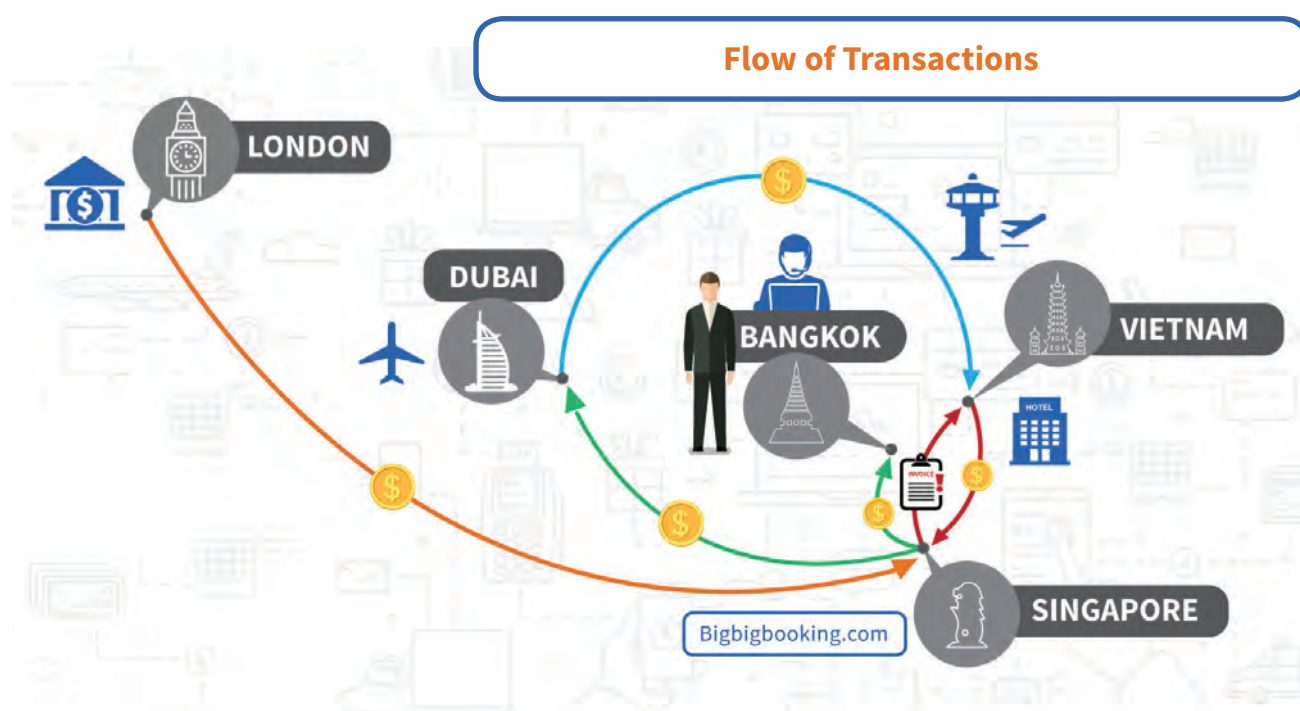
# HOW CAN THE BLOCKCHAIN BE APPLIED TO THE TRAVEL INDUSTRY?

The travel industry is fragmented. Payment between travel suppliers are complex and rife with opportunity for errors, delays and fees.

The following story illustrates the circulation of currency for an online booking and payment.

*Frank is from the UK. He's currently in Thailand and he's booking his next trip on bigbigbooking.com. He buys a flight from London to Vietnam as well as his hotel accommodation with his credit card. As his card is linked to his UK bank account, the journey of the payment originates there.*

*Bigbigbooking.com is based in Singapore, but as the ticket was purchased in Thailand, bigbigbooking.com needs to remit the money back to the Thai Payment Service Provider. Because Frank is flying with a Dubai-based carrier, the money moves yet again. Furthermore, the airline needs to pay fees to the airport in Vietnam, creating another payment. For the hotel room bigbigbooking.com will need to invoice the hotel for its commission. The hotel will then have to pay directly or via a commission aggregator by bank transfer.*



This is a one example of how money flows in the travel industry. It always involves numerous cross-border transactions and multiple middlemen. As a result, moving money between travel suppliers is slow and expensive.



## HOW CAN THE FUTURE OF TRAVEL AND PAYMENT CHANGE?

The blockchain can help remove transaction fees and bypass the banks, merchant banks, payment providers and clearing houses involved in distributing the money from Frank's booking. This results in huge cost savings for airlines, hotels, online travel agencies and all others participating in this transaction. The blockchain can also help travellers control how and when funds are dispersed.

**The Travelkoin Platform<sup>4</sup>** was created to leverage this new technology, customising it to the needs of the travel industry. It offers a payment gateway for suppliers to pay each other directly in a single stable digital currency without intermediaries from digital wallet to digital wallet, making worldwide payments faster, cheaper and safer.



The platform is simpler than a payment gateway. It is programmable money, providing its users with more control over the entire payment process. For example:

*Bob needs to pay Alice and Jane. Alice sends Bob an invoice every month and Bob pays it within 30 days. Alice always offers Bob a 10 percent discount if he pays faster. Jane also invoices Bob but only when Bob reaches his credit limit with her. Sometimes Bob gets both invoices at the same time and he must prioritise which invoice to pay first as he doesn't have enough money in his account.*

<sup>4</sup> <https://travelkoin.io>

The situation between Bob, Alice and Jane are common. The Travelkoin Platform would allow each party to create their payment terms, add incentives and control when contracts are confirmed. In Frank's example above, it would allow each party to receive payment immediately.

Incentivising good behaviour is built deep into the core of the platform using gamification and machine learning.

For the travel industry, the platform consolidates payment throughout the course of a booking and permits smart contracts to disperse funds. Payments can be immediate, time-based, location-based, or manually entered. In the case of cancellations, the funds are returned to the traveller. The contract stipulates incentives such as early payment or processing large orders. A block on the blockchain is an immutable record verified and shared between all participants.

## HOW DOES IT WORK?

By signing up, a company will receive a digital identity used to identify themselves with other suppliers. They can top-up their account with digital currencies and start paying each other immediately. The platform contains a payment currency and a reward currency. The first is to make payments with. The other is used to incentivise "good behaviour" between suppliers. The platform and all its features are free of charge as long as you have some of the reward currency on hand.

The digital transaction of funds between two entities will use a stable digital currency called the Standard Travel Unit (STU). To power the transaction, Travelkoin is required. Travelkoin can be purchased or earned. Travelkoin are generated automatically when a traveller makes a booking. It is in the best interest of airlines and hotels to incentivise this potential customer to give up those tokens to avoid outright purchase. By using the token, the token creates value for travellers and travel suppliers.





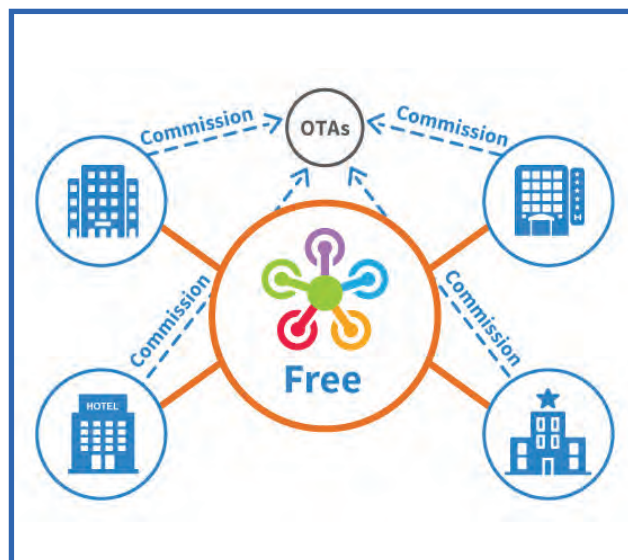
### Business to Customers:

An airline offers a discount to customers willing to pay in full or partially with Travelkoin. Travellers receive a deal from the airline. In exchange, the airline receives access to services on the platform for free.



### Business to Business:

Hotels paying their commission to online travel agencies (OTAs) can use the Travelkoin platform.



The innovative Travelkoin Platform combines an intelligent payment gateway solution, leveraging the blockchain, with the effectiveness of an industry-proven loyalty reward programme for incentivising users. Programmable money is fast, secure and inexpensive and it will make its way into every facet of every industry.





## ABOUT THE AUTHOR

Bjorn Harvold is a serial entrepreneur and a seasoned enterprise software architect. Bjorn's 19+ years in professional software development has allowed him to manage, create and maintain large software platforms in the areas of banking, healthcare, publishing, advertising, e-commerce, education, gaming, telecom and travel.

His current venture in his capacity of co-founder and CTO is creating an online travel agency called [Traveliko.com](http://Traveliko.com) that hotels and travellers will fall in love with.

If you ask him why he is doing what he is doing he would answer: "I love to assist in creating memorable solutions to interesting ideas, while all the time having FUN doing it. I am passionate about BEING passionate and following it wherever it leads me. Lately, I have realised that if I align that passion with being in service to humanity, it becomes that much more rewarding; personally and professionally."

## ABOUT TRAVELKOIN

Travelkoin is the product of several travel companies coming together to solve the industry-wide problem of payments. Any travel company that processes thousands of transactions per day quickly see the amount of fees that have to be paid. By first solving payments, the team wants to start consolidating this fragmented industry around a platform of services travel suppliers can use to run their daily operations.

**Visitor Economy Bulletin** is published ten times per year online and is made available in hard copy at supported events.

February 2018 Edition  
Writer **TRAVELKOIN**  
Design & Layout **Nusreen Ekachon, PATA**

Please contact PATA Publication team at [publications@PATA.org](mailto:publications@PATA.org).



Pacific Asia Travel Association  
Head Office  
28th Floor, Siam Piwat Tower  
989 Rama I Road, Pathumwan  
Bangkok 10330, Thailand  
Tel: +66 (0)2 658-2000  
Fax: +66 (0)2 658-2010  
Email: membership@PATA.org

PATA China  
Beijing, China  
Tel: +86 (0)10 6500-1397  
Fax: +86 (0)10 6500-1497  
Email: china@PATA.org

PATA Pacific  
Sydney, Australia  
Tel: +61 (0)40 983-9225  
Email: pacific@PATA.org

PATA Europe, West Asia, Africa  
London, UK  
Tel: +44 (0)7932 074-978  
Email: europe@PATA.org



PATA PREMIER MEDIA PARTNER



PATA STRATEGIC PARTNERS



PATA PREFERRED PARTNERS



MEDIA PARTNER



PATA ALLIANCE PARTNER



PATA GOLD AWARDS SPONSOR

