

MARKETING TOOLKIT

Latest Hoptroff insights
Cashless Societies

May 2022

The background of the lower half of the page is an abstract digital graphic. It features a dark blue and black background with several bright, glowing lines in shades of cyan, teal, and blue. These lines are curved and intersect, creating a sense of motion and connectivity. In the upper left corner of this graphic area, there is a white triangle pointing downwards, partially overlapping the white space above.

HOPTROFF

We are pleased to share our latest news article with you

About the article

Richard Hoptroff, Founder and Chief Time Officer at Hoptroff, explores the escalating need for accurate time synchronisation and trusted timestamping in the ever-growing, digital economy.

Please feel free to share it on LinkedIn, Twitter or Facebook. If you joined a few industry-related groups, you can contribute to the group by sharing this content. If you've been looking for guest posts or tech trends for your newsletter, we've got you covered.

Marketing Toolkit

As a valued partner or participant, we have pulled together this marketing toolkit to provide you with some resources to help you share the article amongst your clients, business partners, peer network and prospective customers.

We are here to help and support you so please don't hesitate to get in touch. If you'd like to talk to us about any joint marketing activity, please reach out directly to Christine Madden.

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News article

Cashless societies and the need for trusted timestamping in the digital economy

Author: Richard Hoptroff, Founder and CTO at Hoptroff

Cashless – the new normal in the digital economy?

Everyday the prospect of a cashless society draws closer, with only one in six UK payments now being made in cash, and 13.7 million people living a "cashless life" last year, nearly double the level of 7.4 million in 2019. Compared to half of all transactions a decade ago, five out of six payments now contain no notes or coins. A rising number of businesses are going through digital transformation and refusing to accept cash, with many opting to become card-only in the last year - Ikea said on its website that it will not accept cash payments in its UK locations "for the time being". Nando's, a restaurant chain, has gone cashless; Itsu, a Japanese food chain, says it is card-only in stores, and BrewDog, a craft beer company, is among the hospitality firms that have chosen to only accept card payments.

The cashless phenomenon is symptomatic of a wider cultural shift towards digital transformation. Over the last few centuries technology has increased the global reach and average speed of human life pace. Financial transactions have become increasingly fast and convenient, which in turn spurred economic growth. Our reliance on the convenience brought about by all things digital is growing every day, and at an exponential rate. However, digital transformation does not always lead to extra security.

Convenient ≠ Safe

Going through digital transformation and becoming cashless is convenient – it eliminates the middleman, helps avoid corruption and is effective in fighting organised crime. Nevertheless, the convenience has a flip side – digital vulnerability. Indeed, a cashless society calls for a fundamental agreement on when digital transactions took place. A way to ensure that such agreement is in place is by having accurate time synchronisation and traceable timestamping. Timing is also a necessary component of the financial services, banking, forex trading and fintech businesses – regulations such as the Second Markets in Financial Instruments Directive (MIFID II) in the EU, and Consolidated Audit Trail (CAT) in the US legally require time synchronisation and timestamping to be accurate and reliable.

This increasing popularity of living cashless coupled with the intensifying level of demand for accurate time synchronisation and trusted timestamping has exposed the essential need for a systemic solution for when things go wrong, a failsafe backup system to correct any misalignments. If a financial service, bank, forex trading or a fintech business were to lose its satellite connectivity, digital payment systems would begin to fail and a cashless society would begin to crumble. Indeed, few people realise how dependent we are on the satellites that play a role in our everyday lives.

(Continued over)

News article (continued)

While GNSS signals are widely available and free, they are subject to interference and are becoming more vulnerable to assault. Satellites in a 20-kilometre medium-earth orbit broadcast one-way signals in the 1.2-1.6 GHz waveband. This implies that they can be easily disturbed, either deliberately or inadvertently. The most common causes of GNSS disruption are unintentional interference, jamming and spoofing. Unintentional interference occurs when radio waves are generated by equipment ranging from microwave ovens to faulty antennas, drowning out weak GNSS signals. Intentional interference ('jamming') is becoming more prevalent, most notably when commercial drivers jam their on-board monitoring systems to obscure their tracks. Spoofing is a more advanced kind of interference in which fake GNSS signals are created to fool GNSS receivers into thinking they are in another location. As drone technology becomes more prevalent, they will increasingly be used as a defence against unwanted drone incursions. Originally developed by state actors as a defensive strategy, they are now available at low cost and will increasingly be used in defence.

Accurate time synchronisation and trusted timestamping is the answer

The big question is this - How does one build satellite resilience to ensure that a cashless society can function well in the digital economy and in the future? This is where [accurate time synchronisation and traceable timestamping](#) come in. These timing solutions work by linking grandmaster clocks to multiple primary UTC sources in a timing hub, which means that connectivity providers can syndicate highly accurate time to servers in any data centre in the world over Internet Protocol via low-latency fibre cables. Time synchronisation software then adjusts the server clock to match the time feed, measures the internal latency and creates traceable and trusted timestamps logs, which are stored in the cloud. Timing providers have developed systems built on a network of mutually robust cloud timing hubs, each of which is made up of three nanosecond-accurate grandmaster clocks linked to three distinct sources. The hubs compare the various timing sources on a regular basis to guarantee that accurate time synchronisation and traceable timestamps are always maintained. Thus, [network delivered traceable timestamping solutions](#) are bound to become even more relevant as we move towards digital transformation and a completely cashless life. Building network resilience by investing into these solutions will be the key for all businesses even beyond financial services, banks, forex trading or a fintech business looking to go cash-free.

Social media



Twitter

Copy and paste the suggested text, URL and image(s) below.

The UK has moved a big step closer to becoming a [#cashlessociety](https://ow.ly/M05250IXRVt) after official data showed that the number of payments made using notes and coins are falling.

<http://ow.ly/M05250IXRVt>

The UK is becoming a [#cashlessociety](https://ow.ly/M05250IXRVt) – but what are the pros and cons?

<http://ow.ly/M05250IXRVt>



LinkedIn

Copy and paste the suggested text and URL below, a link image will automatically appear with your post.

From PayPal to Revolut to Apple Pay, more and more payments are conducted without notes and coins changing hands. Sweden's planning to turn its krona into [#digitalcurrency](https://ow.ly/M05250IXRVt), and China kicked off its own [#digitalmoney](https://ow.ly/M05250IXRVt) pilot in February. Meanwhile, according to a recent report, the UK is at risk of sleepwalking into a [#cashlessociety](https://ow.ly/M05250IXRVt) before it is ready. <http://ow.ly/M05250IXRVt>