Obviously there are security risks to cash, but are there security risks to digital currency, particularly tokenisation of crypto-currency such as this? How do you answer consumers worried about this newer technology?

Security and more specifically 'offline' security is the backbone of our solution. We observed that digital payment instruments keep a central ledger and repository. Recent incidents have shown that a single attack on this repository leads to massive leakage of sensitive user data.

We picked a few things from the EMV specifications. Our electronic wallet PURSE devices have a specialised secure element chip—a PaySe chip—that is PCI DSS-compliant, provides each device with a unique private key and uses 192 bit ECC [Elliptic Curve Cryptography]. The next step we took is to make our solution decentralised and also offline. Thus, even if one PURSE is compromised, the others wallets remain unaffected.

Our digital cash is uniquely minted for the individual withdrawing the money and carries markers only the intended recipient can identify. As the digital cash changes hands, the markers change on the basis of public certificates shared between the payer and payee, even when the transactions are offline.

You have marketed PaySe as the 'first offline digital cash solution'. How is the offline aspect of PaySe key, particularly in the markets you work within?

Governments and central banks around the world and particularly in developing economies are working hard to find solutions for providing access to safe, secure and affordable financial services to citizens. The biggest challenge in achieving this is lack of infrastructure, both physical [i.e. traditional banking channels including ATMs] and digital infrastructure, which includes internet connectivity.

Our assertion is simple. Anytime you introduce a middle man in a transaction cost is bound to increase. When a payer and payee are doing a transaction and a 'for fee' network is used there is going to be a charge. This is how mobile money solutions work today. We have eliminated this middleman and the mobile network in our solution thereby making a payment transaction completely free of charge; like cash.

Our e-wallet PURSE was designed to allows 'offline' payments using single press 'pay' and 'receive' button. The intuitive interface of the PURSE device allows even illiterate users to easily use device just like cash. PURSE device enabled users to pay/receive anytime anywhere without the need for data connectivity just like cash.

> "Digitisation of materialised goods opens the gate to democratisation."
>
> — **Ashutosh Pande**

You have also said that PaySe can 'democratise' money. How can PaySe, and digital currency as a whole, achieve this?

Digitisation of materialised goods opens the gate to democratisation. Digitisation of music democratised music; digitisation of books democratised books, and now digitisation of money by the PaySe platform is set to democratise cash.

We learn a lot from the music industry. Democratisation of music was not just through digitisation but by creating a platform, iTunes, which worked with all the stakeholders from the publisher of music to the consumer and delivering to the consumer a mobile that could play the digital music, the iPod. Our approach is that democratisation of money will be achieved by creating a platform, PaySe, then working with the publisher of money, central banks, and the distributor of money, banks, along with a mobile to carry money (PURSE).

In African markets, what is the biggest challenge in spreading a new digital currency such at this?

Despite the best of intentions by government, central bank and banks, certain infrastructural realities still exist in certain African markets. Factors such as available access to mobile and data connectivity, or 24/7 access to electricity and road access for cash transportation are still challenges. This has hindered growth of mobile money.

PaySe is digital cash and does not require any of this infrastructure or these facilities to operate.

We see a major success in Africa in the coming years from delivering conditional cash transfer to internally displaced people in Nigeria to providing bi-weekly government grants to differently-abled people in Kenya or supporting the operations of UNHCR the use cases are many.

The biggest challenge we see is psychological—a bundle of cash in hand drives more comfort than a card. We need to work with our partners, the banks and their agents to give the comfort to these people that digital currency is as fungible as physical cash.

How do you see PaySe growing in the next five years, both within Africa and outside?

We see a multi-mode, online and offline payments service, with us playing a major role in providing the PaySe platform to banking institutions to deliver fiat currency efficiently to their customers. Furthermore, we see our PaySe chip being in phones just as GPS chip is there today, enabling secure and seamless payments. LIFT