Technology; Cloud, Data & Blockchain

By Milan Radia, Hardman & Co Analyst

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The technology sector is in the midst of a period of immense change and progress. For a number of years, rapid innovation has been changing the way that we live, work and communicate. This brief commentary touches on a few areas: i) the migration of enterprise software to the Cloud; ii) the data explosion and the emergence of datacentric new technologies; iii) Blockchain, which has enormous potential as a system of record across many segments; and, iv) some perspectives on ongoing M&A in the technology sector. Certainly, from an investment perspective, it is an exciting time but, as ever, stock selection will be key.

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A period of immense change and progress

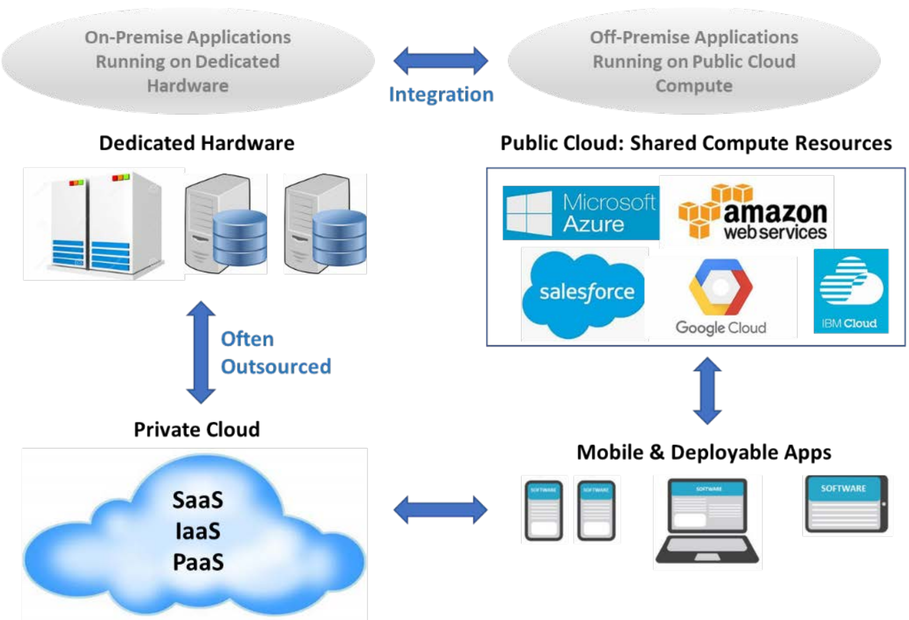
The technology sector is in the midst of a period of immense change and progress. For a number of years, rapid innovation has been changing the way that we live, work and communicate. These developments remain in their relative infancy, with new data-centric technologies, such as artificial intelligence and machine learning, yet to make their mark. No industry or vertical will be exempt from the impact of these developments.

This brief commentary touches on a few areas: i) the migration of enterprise software to the Cloud; ii) the data explosion and the emergence of data-centric new technologies; iii) Blockchain, which has enormous potential as a system of record across many segments; and, iv) some perspectives on ongoing M&A in the technology sector. Certainly, from an investment perspective, it is an exciting time but, as ever, stock selection will be key.

The benefits of the Cloud are now well understood…

There is limited debate today as to whether Cloud-based delivery of software applications has merit. The efficiency and productivity benefits are well understood, while security concerns have faded in the absence of breaches at the major Cloud platforms. Indeed, there are swathes of highly-adopted major enterprise applications that are available either only on the Cloud (Salesforce, Concur expenses, Success Factors HR, etc.) or where the Cloud versions are rapidly gaining in popularity due to the utility benefits versus on-premise versions – Microsoft's Office 365 falls nicely into this category.

The shift to hybrid Cloud



Source: Hardman & Co Research

Software vendors have traditionally thrived on complexity and from embedding as much depth as possible in their products. They are now being forced to change their approach as the move to the Cloud is, in many respects, inconsistent with the notion of entrenchment through interfaces and complexity. Most software providers are deploying their Cloud products on the main Cloud platforms, leading the latter to become enormous businesses in their own right. Amazon Web Services' Public Cloud annualised Cloud revenue in 1Q'18 was almost $22bn, growing year-over-year at 49% in the period.

However, matters get more complicated when enterprises are using more customised and complex applications, with a greater degree of interaction with other IT platforms. An obvious example here would be Enterprise Resource Planning (ERP) systems, which plug into all aspects of large companies, including production and supply chain systems. To simply unplug an on-premise ERP installation that has been tweaked and refined over a long period of time is fraught with risk. In these scenarios, a careful hybrid Cloud journey is the only practical solution for most companies focused on a progressive and measured shift in IT architectures.

…but ultimately, for investors, the shift to Cloud is a positive

For many legacy software vendors, these constraints and issues have offered a degree of breathing space to allow them to upgrade their product offerings and/or make strategic acquisitions as necessary. Ultimately, for investors, this shift to the Cloud is good news. Companies may have some upfront product and platform investments to make, and revenue sacrifices to bear, as they shift to recurring revenue models, but the upside is much-improved revenue visibility, reduced forecast risk from lumpy software licence sales and improved portfolios of product offerings. Sage is an example of a leading UK software company that is considerably along this journey already.

Data

Dramatic increases to come in the amount of "data" that is captured and analysed

Perhaps the broadest theme in the technology sector today is the critical importance of "data". The scope and tools to collect, aggregate and process data, and utilise it to assist decision-making, have increased dramatically in recent years. Open-source databases are playing an important role in this context. Estimates suggest that less than 10% of data is tagged today and only 1%-2% is actually analysed – so there is a long way to go before the available data is even adequately harnessed.

The declining costs of storage and connectivity, coupled with an ever-increasing number of collection points, ranging from the Internet of Things (e.g. sensors), social media through to traditional enterprise applications, are resulting in a veritable explosion of 'data'. More advanced analytics are needed to turn this data, whether structured or unstructured, into useful or actionable information. Use cases are now emerging where data is being effectively utilised to provide predictive insights to enterprises across many industries and disciplines.

There is considerable interest at present in technologies such as artificial intelligence (AI), together with its machine-learning and deep-learning subsets. Autonomous driverless cars have also captured much publicity – good and bad. Without going into the details of these areas, one key common feature is that they are all fully reliant on data in one way or another. These systems absorb large amounts of data to simulate human behaviour, in the case of AI, or create models that essentially encode what has happened in the past in order to predict what will happen to those same factors going forward, in the case of machine learning. As it happens, these technologies are building on decades of research and development, but the ability to aggregate and process data on a huge scale has unlocked their potential.

Similarly, driverless cars are generating enormous amounts of data from their sensors as they travel. The data is analysed (some locally in the vehicle, some centrally) in real-time, and the vehicle is able to proceed. Considering the near exponential being seen in connected devices (already in excess of 11 billion), each generating plenty of data, the data explosion is unlikely to abate any time soon.

The attractions of highly-connected data centres

Among the segments most directly exposed to these favourable themes are the data centre operators, in particular carrier-neutral data centres. These are very secure, with large amounts of power that house the servers where content and data (or enterprise data) reside (whether Netflix or Spotify content). The Cloud platforms are present in their own hyperscale data centres, as well as the carrier-neutral facilities – the latter for computing for latency-sensitive applications and mission-critical applications.

Not all data centres are the same, however, with connectivity density a key differentiator. The highly-connected facilities tend to have premium pricing and benefit from high levels of network connections across telecom service providers, internet service providers and, increasingly, depending on location, submarine cables. In a European context, Interxion is one of the leading providers of carrier-neutral data centres.

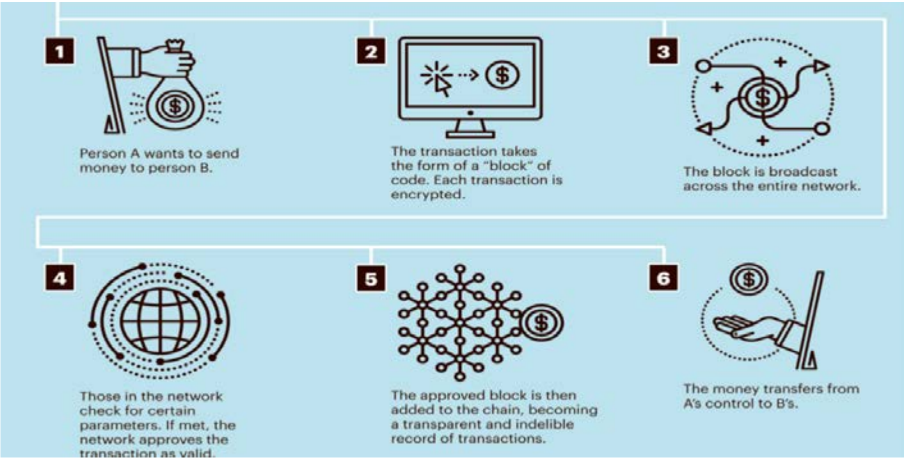
Blockchain

Blockchain: a fundamental component of future process architectures…

Against the backdrop of the roller-coaster ride offered by cryptocurrencies, the underlying technology for Bitcoin, called blockchain, has quietly been establishing itself as a fundamental component of future process architectures. Governments and enterprises alike are growing in their understanding of the potential benefits.

A blockchain is essentially a ledger that is maintained on a decentralised basis by a network of nodes. By design, anything recorded on a blockchain cannot be amended, creating a permanent record of the transaction history of an asset once it has been added to the blockchain. The links between blocks and their content are protected by cryptography – so previous transactions cannot be destroyed or forged.

Blockchain – how it works



Source: Centre for Entrepreneurship & Technology at UC Berkeley

Each node has an identical copy of the ledger, making any attempt at hacking into the ledger to amend any details of a transaction virtually impossible, as every copy of the ledger on every node would need to be hacked and amended simultaneously. That said, if the owners of an asset on a blockchain were to lose their private keys or have them stolen, then their ownership would be relinquished. However, this is no different from losing or shredding a bearer bond certificate.

These attributes make blockchain potentially highly compelling – where there is a need, for example, for proof of ownership or authenticity to avoid a fraudulent sale. Evidently, at the point that the first entry is made, a stringent verification process would need to take place. Property transactions, legal documents, contracts, fine wines, or any valuable item with a serial number are all examples of assets that could be placed in a blockchain.

…and financial services vertical will ultimately be a major adopter of blockchain

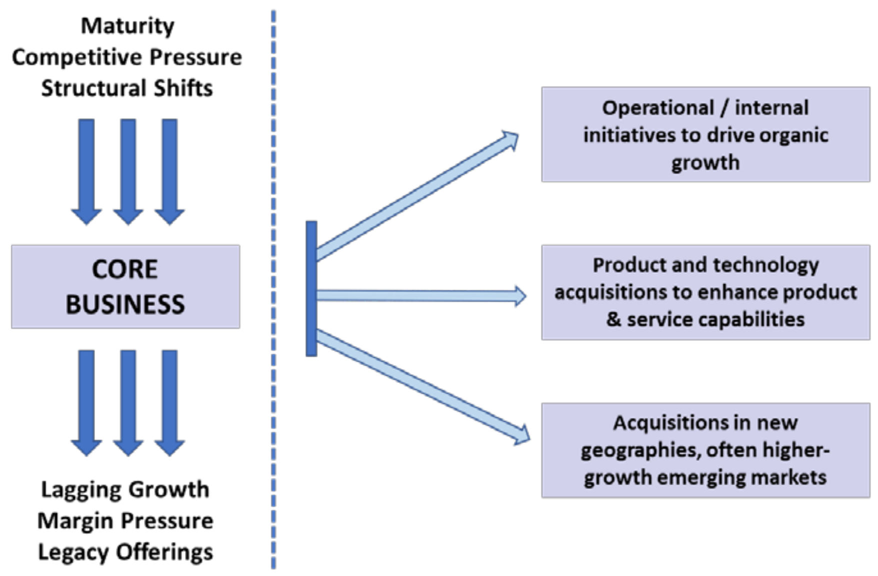
The financial services vertical will ultimately be a major adopter of blockchain, although the constraint here is that multiple market participants will need to agree to formats and commit their transaction flow to get these platforms off the ground. This is proving to be relatively slow at present, while a number of initiatives are still progressing through regulatory sandboxes. Nonetheless, over time, we expect blockchain to become prevalent in the payments segment, especially in cross-border and transaction settlement processes.

M&A

Technology companies benefit from scope to realign activities through M&A…

In a fast-moving industry landscape, the extent to which company management teams are proactively seeking out sustainable pockets of growth is important. Technology companies tend to be cash-generative and, therefore, benefit from scope to realign "portfolios" of activities, organically and through M&A. We particularly favour companies that have demonstrated an ability to drive incremental growth in this way.

Organic versus acquisition-led growth



Source: Hardman & Co Research

So, the logical next step for many companies could be an expansion of presence in new markets where growth rates are higher and where competitive pressure is lower. This requires management teams to look beyond their natural comfort zone in Europe, possibly with a bias to emerging markets. This does not have to necessarily be via acquisitions, but could also be through organic initiatives, to the extent that the latter can make a meaningful difference over a reasonable time frame. However, there have to be synergies and mechanisms to exploit the available higher growth rates from the core business. Isolated purchases of operations in far-reaching locations can only be justified for companies with global reach and international operations that can leverage this incremental presence.

There has been a catalogue of substantial M&A transactions in the European technology sector over the past six to 12 months. Some of this activity has been "product-centric" – structural shifts in the technology sector are changing the way that applications are deployed, how data is processed and analysed, and the mechanisms by which content is delivered and accessed. These trends are creating pressures on companies that may have under-invested in newer technology capabilities and serve as examples of drivers of the consolidation activity. Tactical considerations have also played a role, whether relating to utilisation of overseas cash balances or a drive for returns through leverage – the latter being a focus for private equity owners.

…with preferred targets tending to be specialist vendors with differentiated product offerings

For strategic and trade acquirers alike, the preferred targets tend to be specialist vendors with a differentiated product offering and a strong track record of innovation (albeit, in certain cases, with the execution issues this has created). Within the UK, in the last 12 to 18 months, examples of takeovers in these categories include AVEVA (acquisition of majority stake by Schneider), Fidessa (acquisition by ION Trading), Imagination Technologies (purchased by Canyon Bridge) and Lombard Risk Management (acquired by Vermeg).

About the author

Milan Radia is a leading technology research analyst focusing on the coverage of European data centre operators, software vendors, payment processors and IT service providers.

He has 25 years of equity market experience at major investment banks and in asset management, and has worked on many high-profile successful IPOs and other capital markets transactions. In recent years, Milan has won several significant awards. In 2017, he was ranked the No.1 earnings estimator in the UK for his sector in the Thomson Starmine Awards. This followed No.1 Starmine rankings for Europe in 2010 and 2011 and a No.2 ranking in the UK in 2011. In 2015, Milan and his team were ranked no.1 in the Extel Awards by corporate management teams for UK Small & Midcap technology research. Milan has also been techMARK Analyst of the Year and achieved top 3 Institutional Investor sector rankings for his coverage of the software and telecoms sectors.

Milan started his career at Prudential Portfolio Managers, where he was latterly a fund manager responsible for portfolios worth in excess of £350m. Milan is a regular presenter and panellist at major industry conferences, and is a long-time member of the voting panel for the UK Tech Awards.

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