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IS DATA THE NEW CORPORATE INFRASTRUCTURE?

This article was written by Roger Camrass, director of CIONET UK and a visiting professor of the University of Surrey, and is based on the conversations during a dinner on 'pragmatic steps to becoming a data centric enterprise' sponsored by Delphix in London this April.

In the words of a senior IT executive of a global consumer goods company "We are transforming ourselves from an ERP-driven enterprise to a data-centric organisation". Such were the sentiments of many delegates gathered around the table during a lively debate on digital transformation this April.

Everyone recognised that since 2015 the volumes of global data have doubled and are forecast to multiply four-fold by 2025. But managing and exploiting such data assets has become a near impossible task given the rigidity of legacy systems on the one hand, and the near chaotic explosion of external data from new sources such as connected home, car and city.

The conclusion of the discussion was that to sustain competitive advantage in the future organisations need to design infrastructure around data rather than traditional hardware and software service towers.

Data placed in a business context

Travel companies such as IAG and retail businesses such as Harvey Nichols recognise that improved use of data can help maximise seat prices in air travel and target premium retail customers more accurately to increase revenues. It can also improve operational efficiency of complex networks in the case of telecommunication operators such as BT.

Data is recognised today as the key to growing revenues and controlling costs by supporting three aspects of any business:
- Enhancing the customer experience, as amply demonstrated by Amazon and Google who have placed data at their centre since inception
- Predicting customer behaviour and optimising offers accordingly as we see in the case of many digital natives such as eBay and Booking.com
- Improving operational efficiency as in the case of any infrastructure owner, be it an IT organisation or public service provider such as AWS or AZURE

Effective cleansing and harmonisation of data across multiple applications can also reduce the incidence of 'grey IT' which frequently diminishes white collar productivity

by 25-33%. In all such areas the business case for addressing data as a top priority appears compelling, especially where competition may now arise from digital newcomers who recognise data management as their core competence.

What are the challenges associated with data?

Becoming a data-centric organisation may sound appealing but just consider the realities today for many large incumbents. Data is frequently hidden in hundreds of legacy applications and controlled by separate business owners and IT managers. It is not uncommon to find up to 10,000 such applications in a Fortune 1000 company. The task of consolidating and standardising such data is substantial as a leading UK high street bank is discovering – to the cost of billions of pounds of investment extending over multiple years.

At the same time the avalanche of new data from external sources such as remote sensors in the case of smart metering, combined with powerful tools such as predictive analytics and machine learning, is encouraging an ever-broader cross section of the workforce to engage in data-driven decision making. Teams and individuals are making new demands on the IT organisation to provide such tools and data connections to every member of staff.

Work is underway in most organisations to virtualise and consolidate data, but this task is being frustrated by a growing number of conflicting options. According to Delphix, the starting point must be to assess just where points of friction exist and define required outcomes before diving into technical solutions.

What are the main points of data friction?

As mentioned, the most critical point of friction today is the myriad of legacy applications and associated incompatible data sets. Many organisations now employ data scientists to deal with this challenge. However according to delegates, such scientists often seem preoccupied with localised technical issues rather than helping to socialise the data amongst the wider workforce.

One of the worst cases of data friction in the UK is electronic patient records. Despite a £20Billion programme to harmonise such records into a single national database, the programme ended up as a dismal failure, leaving patient records dispersed across local hospital trusts. Despite good intentions, the UK government was not prepared to impose a tight data policy that would have required every NHS unit to adopt common standards.

Cloud can also introduce new points of friction as valuable data assets become spread across different service providers such as AWS (development), AZURE (production), and Salesforce (Software as a Service). Few IT organisations have the necessary visibility or control to ensure that common data standards are implemented between different work groups. Mergers and Acquisitions, as in the case of a leading European Insurance group, can also introduce data fragmentation between business units with individual customer records hidden within separate systems.

How might a data-centric inflastructure help eliminate friction?

Many organisations within the CIONET community are evaluating an infrastructure refresh due to rapid changes in demand (originating from new business applications and end-devices) and supply (such as software defined networks and 5G). Much of the 'heavy-lifting' such as private networks and data centres can now be substituted by hybrid cloud solutions. In this respect, much of the traditional infrastructure management will begin to disappear.

In its place, our discussions suggest that new infrastructure designs will focus on more flexible cloud-based platforms that will house consolidated data assets. Such data will become available to all members of staff, together with a wide range of analytic tools. This will enable workers of all kinds to exploit latent knowledge in ways that are directly relevant to their specific tasks and responsibilities. In the case of digital natives such as Amazon and Google, every member of frontline staff receives vital external data from which to optimise products and customer experience.

About CIONET

CIONET is the leading community of more than 10,000 digital leaders in 20+ countries across Europe, Asia, and the Americas. Through this global presence CIONET orchestrates peer-to-peer interactions focused on the most important business and technology issues of the day. CIONET members join over a thousand international and regional live and virtual events annually, ranging from roundtables, programs for peer-to-peer exchange of expertise, community networking events, to large international gatherings. Its members testify that CIONET is an impartial and value adding platform that helps them use the wisdom of the (IT) crowd, to acquire expertise, advance their professional development, analyse and solve IT issues, and accelerate beneficial outcomes within their organisation.

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