Storm clouds in 2016?

Mike Weston, CEO of data science consultancy Profusion, discusses what issues will impact data protection and security in 2016.

2015 has been a mixed bag for cloud services. On one hand, growth has continued to be strong, with research firm IDC estimating that $8.2 billion will be spent in Europe alone on professional cloud services. This is up from $560 million just five years ago.

Big players like Adobe predict further strong growth in 2016 and the outlook for employment in the sector looks very robust. Amazon and Microsoft have launched a range of new services with a particular focus on data science. However, on the other hand, various legislative and judicial decisions have created a lot of uncertainty that may crystallise in 2016.

You'd be forgiven for not keeping up with all the changes that have happened this year. Safe Harbour, the Microsoft Case, new European data protection legislation, the Cybersecurity Information Sharing Act and the Investigatory Powers Bill – just to name a few. This is in-between various serious data breaches, the growth of IoT, wearables and data science, and the battle between Spark and Hadoop.

For our purposes it's worth focusing on Safe Harbour and the Microsoft Case as both these issues are likely to have the biggest impact on cloud services providers and customers in 2016.

Starting with the striking down of Safe Harbour, an agreement that governs the transfer of data from EU countries to the US, the impact is likely to be most felt if and when a replacement agreement is created. The EU and the US have until January to create an alternative arrangement. However, the prognosis for a comparable agreement being struck is not good.

Larger tech companies like Google, Amazon and Facebook that currently have a lot of data centre infrastructure dotted around Europe are not going to be unduly troubled. The real pain is going to be left for smaller US businesses. Realistically, many will be unable to afford to create their own infrastructure in Europe. This leaves them with the choice of avoiding doing business in the huge European market, or relaying on the bigger players for infrastructure, which will inevitably lead to higher costs.

The greater issue is that the end of Safe Harbour marks a clear divergence in how the EU views data protection versus the US. Many countries within the EU believe that individuals do not have enough protection and government oversight and interference has grown too big. This position was showcased by the passage of the Cybersecurity Information Sharing Act in the US last month. The Act makes it easier for American companies to share customer data with US security agencies.

Consequently, when a new Safe Harbour-type arrangement is agreed, it is unlikely to reassemble the one most cloud service companies have been used to dealing with. The net-result is an increase in compliance and legal fees. Not exactly the best Christmas present for many US tech companies.

Even more concerning is the US Government's move to force Microsoft to provide access to data held outside the US. Not only could this case mark a further rupture with Europe, it will severely undermine the security and privacy of cloud services. If the US Department of Justice can access data held anywhere in the world by a US company it suddenly makes all US cloud service companies very unattractive.

The one saving grace of the Microsoft Case is that it has a long way to go. Whatever the judgment in the first quarter of 2016, legal proceeding is likely to drag on. Although this injects a certain level of uncertainty into the sector, it gives cloud businesses time to find work around if things do not go their way. Microsoft has already made a move by [creating a partnership with German](#) company to host cloud services entirely within Germany.

Both these issues are a headache for cloud service companies and customers, however, it shouldn't detract from the positive outlook for the sector as a whole. The growth of data science, particularly machine learning, has opened up a world of possibilities. Not only for better security, but also for a rapid increase in the number of businesses that require cloud infrastructure.

Clearly, as IoT is essentially billions of connected devices, it will be underpinned by the cloud. I don't expect 2016 to be a breakthrough year for IoT, however, like with smartphones, it really is only a matter of time before a 'killer app' catapults the sector from the tech bubble to the mainstream. When this happens the growth potential for cloud services will be unprecedented. In a similar vein, the rapid increase in investment in smart cities is an incredibly exciting development.

2016 may be a year of uncertainty and legal issues for cloud services providers, however, those that navigate these problems have a lot to look forward to over the next decade.

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