EVOLUTION OF THE PLUG-IN ECOSYSTEM

A whole new business economy is being created as a result of IT systems being able to interface with each other more easily through APIs

The term application programming interface, or API as it is generally known in the tech community, doesn't really set the pulse racing. In fact, it sounds downright dull and its definition does little to add lustre. It is defined as "a set of routines, protocols, and tools for building software and applications".

But it's what it does and its practical application in our everyday lives which is genuinely exciting. APIs allow new features to be integrated into existing applications through what are known as "plug-ins" and can also assist different applications to share data thereby enhancing the functionality of both systems.

An example of a very commonly used application which relies on APIs is Booking.com. Users can search for hotels around the world, select the one they want, and book and pay for it online all from within an single app. This only works because the hotels and other service providers allow Booking.com to interface with their booking systems. The same applies to travel services such as eDreams and various used car search sites.

Together, these various services and the technology providers behind them are now considered part of a new business ecosystem which is based on APIs.

This has major implications for businesses and the systems they use according to Ian Cahill of Grant Thornton. He points out that for years businesses had to pay very dearly to have even relatively simple additional functionality built into their existing systems. This resulted in a situation where businesses had to try to future-proof their technology systems purchases, often at great expense.

"When organisations are buying major systems they try to ensure that they get everything they might possibly need because the cost of going back and getting it later would be prohibitive," he explains. "This led to a situation where it would take years to get a system designed and implemented and then it would be found that the organisation was only using a small fraction of it. They were also paying huge support and maintenance fees for the whole system and not just the bits they were using. They often tried to push back against this but the suppliers weren't interested," he says.

But the situation started to change some years ago. "People started to get clever", Cahill points out. "The cloud came along and offered the bits you wanted to do at a fraction of the previous cost. That was great but how do you integrate these things with the big ERP [enterprise resource planning] systems that you already have?"

There is, after all, little point in having lots of nice useful applications available to your business if there is no way to integrate them with your main system. It would be a bit like having a cash register which is disconnected from the accounts department.

"The market put pressure on the big technology companies to open up their systems and they did in the end", says Cahill. "This was a victory for the consumer but it's never that simple. The tech sector rightly says that if you're going to integrate with its systems you have to do it by their rules. It's their way of retaining control. However, in recent years we have got there and the systems have been opened up. That's where we are starting to see the creation of this new ecosystem.

Different elements

"If I have a company with a certain ERP system wall-to-wall in the business and I also have other small suppliers doing various other bits, I have an ecosystem of suppliers to manage and take care of," he adds. "I have to ensure that all the different elements stay updated and continue to work with the system. The technical way to do this is with an API."

The opening up of the systems led to a realisation that there were a lot more opportunities than those which existed within individual businesses. "People started saying hold on a second," Cahill says. "They saw
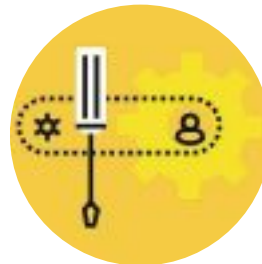
that this was something else and very different. They realised that they could make APIs available to partner companies to make entirely new systems. Their own IT systems started becoming the business instead of just supporting it."

He cites the example of a company with a sales team going around with sheets of paper and keying in the data back at base at the end of the day.

"They are doing things one way but one of their suppliers might have developed an automated system for their sales team that runs on the cloud and is much better. By using an API to allow that system interface with their own ERP system the company can move to an automated sales process quickly and easily at very little cost. By sharing the system they can achieve economies of scale. That's also the basis of a whole new product for that company. When firms partner with each other and share resources that drives innovation, and this is creating an API economy."

Third party resellers

The challenge is to bring the companies together in the first place. "A lot of big companies are already very good at doing this and everyone can learn from them," Cahill notes. "Ebay is one example. About 60 percent of eBay listings are through power-sellers and resellers. These third party resellers are using an API to set up online stores on eBay. Expedia is similar. That company shares data with other providers and aggregates hotel prices from around the world. People are doing similar things all the time. Anybody that does mobile payments is using an API. If I pay for something using my phone the merchant who I am dealing with could be going through several APIs."

And it's not just payments and purchases which are being enabled. He points out how Campbell's Soups are using an API to build an ecosystem for marketing purposes. In this instance it allows people who upload YouTube videos of Campbell recipes to get nutritional information about the

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soups and use it as part of the recipe.

But of course, it is the payments area where the main action will probably take place in future.

"There are big advances in the banking sector, some of them being driven by regulation. The Payment Services Directive means that they will have to allow third-party payment providers have access to customer accounts once they have the customer's permission. That will all be done by APIs. But why should it stop there? What if a bank said to the third-party service provider, what if you sell my insurance product as well? That's when you start to create an economy with an exchange of value, money, thoughts and ideas," says Cahill.

He sees opportunities for banks to move into a whole range of different areas, including retailing. "If the banking service is in the cloud there is no reason why it shouldn't link to other retailing services such as music. You could buy the most recent release by your favourite artist at the same time as paying a few bills online. And

that's just the products we know of now. The banks will start to work with other companies and ask if they can do things together. They will seek to work together to create new products that customers might want. What customers got in the past was what the banks were able to give them, in the future it will be a much wider range of products and services."

Resource sharing

Cahill believes this is more than idle speculation on his part. "There is no doubt that this is going to happen in future", he says. "It's a very positive development. Take the Clickandgo travel service, for example. They work together with Aer Lingus, Ryanair and other providers and have created something where everyone's a winner, the business partners and the consumer. This is what can be achieved when it's done properly. The opportunity lies in the resource sharing and companies are starting to realise that it's a case of joining them if you can't beat them."

WHAT IF A BANK SAID TO THE THIRD-PARTY SERVICE PROVIDER, WHAT IF YOU SELL MY INSURANCE PRODUCT AS WELL?