Databases and Legacy Systems – The Babel Fish Question

Those of you who have read Douglas Adams 'Hitchhikers Guide to the Galaxy' will of course know that the Babel fish is a leech like creature that if inserted into the ear, instantly translates all languages. It had other claims to fames far too inflammatory to make my Blog, but let's concentrate on its core talent – a universal translator.

My experience of automotive legacy databases and systems is that they generally need, but do not have, an element that plays the part of the Babel fish. By the time you add the combined facets of hardware, database platform, security paranoia and just bad database construction, generally most systems are an Elton John creation – deaf, dumb and blind.

One of the key drivers in this can be users. Ask any user how they would like to interact with data within their system, and the answer is generally "just spit it out into Excel, and I'll take it from there!" Now Excel is doubtless one of the most powerful and useful pieces of software in the world – I once received an offer of employment typed as an Excel spreadsheet! But boy is it over used. It was never meant to be the principle method of interfacing databases!

I have encountered so many databases where any ideas of interfacing are restricted to the ability to pull in a CSV file. Apart from the ease of scrambling data in Excel in the hands of the inexperienced, CSV imports are hardly cutting edge.

Years ago OEMs in many industries started to create EDI (Electronic Data Interface) conventions. These where highly prescriptive sets of rules and processes whereby an OEM could communicate with their suppliers. It was a power kick really as these conventions where very solid, bullet proof in fact, and as such expensive to operate. There were layers of handshaking, encryption, cataloguing and auditing to make sure not only where messages correct and secure, but consecutive and complete. When your margin per widget is measured in thousandths of a penny, these were expensive conventions.

Today, at least in the dirty end of the automotive sector I operate in, whilst people still talk about EDI, it's a more generic term.

Why do we need EDI? The answer is simple really – cost. Whilst Gladys might be a lovely girl or Grant might be the company football teams best striker, if all they are doing is data input, they are costing you a fortune.

The ways of linking systems are many fold. File Transfer Protocols (FTP) are a set of off the shelf methodologies to either pull or push data in any form between systems. These can be scheduled or triggered. One of the beauties of FTP is the addition of an 'S' to create Secure FTP processes with encryption keeping the accountants happy.

The internet has opened other paths. Systems can spit web transmitted data packets between them using xml or html, with the latest being a family of conventions known as web services (SOAP being an example).

So it's easy then.....well no, unfortunately not. Going back to the old fashioned EDI conventions, whilst they were too restrictive and expensive, they were also highly robust. Today, the lighter

touch frameworks unfortunately miss out on the rigour that keeps data transmission seamless. Let's be honest – EDI is all about maximising one piece of data input so that the supply chain can re-use it. Cost savings and consistency is great, but one piece of data inconsistency along the supply chain is replicated time and time again, or it lacks the consistent formatting that any computer system relies on and the process falls over.

So one way or the other, the Babel fish needs policing to ensure that everything happens when it is intended to, in the format it is intended to, and that nothing has dropped off meantime in the cold weather.

Generally, systems can police their interfaces or a piece of bolt on functionality or middle wear can do it for you, or as a last resort, a policeman or team of police people can sit and make sure all is seamless.

In my previous company, I had a combination of middle wear and people who kept the wheels turning for a range of businesses. In truth it was brilliant, but of course as it was charged back out, accountant's beady eyes kept falling on it.

Generally the best result is a piece of middle wear that proactively monitors what is going on with an alert and inform mission when the expected does not happen. Of course, generating the appropriate rules and actions is a highly technical process, and a well monitored and policed database will not be cheap.....but cheaper than Gladys and Grant.

So all you business leaders out there, if you truly want to lead your market places, stop penny pinching on your legacy systems, create a truly linked supply chain, police the data transfer process, look after your Babel fish and improve your margins.

If you don't, you'll end up like that other animal group no longer seen on our planet – the dinosaurs.

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