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# Sink or Swim:

## As industries collide, will telecoms players swim to a rosy future, or sink beneath the rising tide of convergence?

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*Driven by a combination of well-documented factors we are, for better or worse, amid a wave of convergence and consolidation in the telecoms market. One of the hidden effects of headline-grabbing M&A activity is the profound implications it has on the business processes of the companies involved, and the IT systems that support these processes. There is a growing realization that these systems are a vital component of a service provider's next-generation survival strategy, but transforming back-office architectures is fraught with both difficulty and risk. Celona Technologies' Paul Hollingsworth explains how some leading telcos and vendors have got together to come up with a solution to at least part of this problem.*

As I write, Telecom Italia is announcing the break up of its operations into fixed and mobile service divisions. Implicit in this announcement is that the infrastructure – including the network, OSS and BSS – along with staff and processes will also be divided up. Nor is this an isolated occurrence. AT&T's $67 billion acquisition of Bell South, is just the latest phase of consolidation in the US market. While the UK's cable market has now consolidated down to a single player – NTL – which in April added an MVNO to the mix in the form of Virgin Mobile.

In the UK there is a long-standing observation that people change their spouses more frequently than their banks. Well maybe this has something to do with the relative number of IT support systems involved in the change? In telco-land, major IT systems often outlast the company structures for which they were designed. Convergence or divergence of services, acquisition, demergers and divestitures mean that the systems environment is in a state of constant change, with application requirements, regulation and business processes never standing still.

While trying to make sense out of multiple, disparate and complex back-end infrastructures resulting from ongoing M&A activity, IT staff also have a whole host of other problems that need to be resolved in order for service providers to deliver against their commercial goals. "Service provider's network environments are often overly complex, creating a barrier to the efficient and cost-effective roll-out of new services," explains BT's David Milham. Many service providers are struggling with legacy systems that were not designed for today's service environment and are just not flexible enough to cope with ongoing change or the future service delivery environment. This back office architecture has resulted from years of tactical, stove-pipe, best-of-breed product investment. It is often very expensive to maintain and far less flexible and efficient than hard working users and developers deserve.

To make matters worse, we simply don't have the luxury to scratch our heads and take in the enormity of the problem, as a host of competitors are waiting in the wings, eagerly rehearsing their marketing lines.

BSS/OSS analyst Teresa Cottam, author of Analysys Research's *The Next-Generation Bill: commercial and technical strategies*, comments: "At a high level we now have a vision of how the future architecture will look: two seamless, intertwined and heavily automated processes that support service delivery and revenue management. But the back-end infrastructure resembles the legendary Gordian Knot, in more ways than one. We don't have time to exhaustively debate the problem or to systematically untangle it – we need a bold, innovative solution that cuts to the heart of the matter."

When we dare to dream of a such a solution, we fantasise about a seamless service delivery architecture where the systems are integrated in such a way that it delivers services to customers in a timely fashion, is flexible enough to cope with any future (as yet undefined) service, is efficient and affordable. This system would enable inter-company and intra-company exchanges of information to be handled in the same way. It would be able to cope with business change.
So when two companies merged, the system architectures would be equivalent, enabling easier consolidation. And when systems needed to be split, duplicate systems could be created and the data divided between them. Some customers, products, financials, inventory or whatever would be on one copy of the system and some on another copy.

Sounds too good to be true? Is it an impossible dream or even theoretically possible?

Well the Telemanagement Forum doesn't think so. It is in the process of turning this dream into reality via an initiative called the Product and Service Assembly (PSA). Yes, I've mentioned a dreaded *standards* organisation, but please don't stop reading as it's just about to get interesting. I know what you are thinking, eTOM, SID and other devices have been around for some years, but they haven't exactly re-shaped our universe. I'd go further and add – perhaps a little controversially – that neither have they provided a solution yet to the problem stated above. So why should the PSA be any different?

Firstly, the PSA has the advantage of being driven by three leading service providers – BT, Cable & Wireless and TeliaSonera – which are collaborating with Atos Origin, Axiom Systems, Celona Technologies, Huawei and Oracle to create a unique IT reference architecture. The service providers' input is being used to improve the definition of the problem of service assembly and to ensure that the solution will work in the real world.

The PSA reference architecture will enable new services to be easily assembled from existing or new service elements and, in turn, orchestrate the necessary change within appropriate OSS/BSS applications dynamically. The approach is based on a set of co-operating product and service catalogues, and TMF standards are used to provide off-the-shelf integration of the OSS/BSS elements.

The PSA initiative solves a fundamental problem for service providers. As we all know, every product or service has three elements: data that describes it, rules that it conforms by and process that drives its fulfilment and operation. Of course in traditional telecoms architectures these three elements are fragmented across multiple systems, workflows, integrations and manual processes. Again creating a nightmare for anyone trying to re-architect the systems into new boundaries of control. The PSA addresses this by encapsulating all three parts into single elements – or *beans.* Or as the PSA call them: *Telco Beans*. Beans can theoretically be dispersed across systems or layers, though the PSA describes five principal system areas: Order handling, Product Catalogue, Service Catalogue, Resource Inventory and Devices/network (from the SIP server downwards).

Mikael Åhman, Director of OSS & Production at TeliaSonera, says: "We expect the catalyst project to produce a model that can be accepted by all our partners, suppliers, developers and operational staff. We anticipate that the Product and Service Assembly catalyst will create a model which is inexpensive to deploy and which limits time-consuming customization."

If this sounds sufficiently intriguing then don't take my word for it, come along and take a closer look and see for yourself whether the PSA can deliver against the dream.