Growth, Competition, and the Service Factory

By *Tim Young*

What made Henry Ford special?

He didn't invent the automobile. Karl Benz is generally considered the inventor of the modern automobile, though even he was preceded by electric and steam-powered vehicles dating back to the late 17th century.

He didn't necessarily even "invent" the assembly line, per se. Clock manufacturers, Chicago meatpackers, and even, by some accounts, Venetian shipbuilders utilized assembly lines, in one way or another.

He wasn't even first to apply the assembly line concept to automobile production. Ransom Olds, of Oldsmobile, did so almost a decade before Ford's Model-T line opened.

So what made Henry Ford special?

He brought it all together. With the help of his top production experts, Ford blended repeatability, interchangability, cost-effectiveness, and speed of assembly into an assembly line that would change the face of industrial production, worldwide.

Building a new factory concept, one brick at a time

A century later, the communications industry is in a state of flux that, in some cases, borders on disarray. Technology is advancing at a staggering rate, and providers don't have the luxury of downtime to deliver new services and solutions. Furthermore, communications service providers (CSPs) don't offer a single, unitary product. They offer an array of services with a wide variance in complexity and type. Moreover, CSPs endeavor to offer more than just an array of services.

> The communications industry is in a state of flux that, in some cases, borders on disarray.

Their goal, increasingly, is to offer a total communications experience. A service is one thing. CSPs want to deliver a lifestyle.

Moreover, most modern CSPs are standing astride two generations. They still offer legacy services as they also roll out next-generation services. That's especially problematic for a number of reasons.

For legacy services, planning is easy and relatively straightforward, while fulfillment is much more complex. All aspects of a service come from the service provider and the fulfillment is often a manual exercise. Silos abound. However, the next-gen environment is all IP, so service fulfillment is less about an individualized design-and-build process, and more about the arrangement and configuration of common parts into a usable design. The benefit, of course, is that this process can be largely automated.

Previous generations of service lent themselves to the creation of silos, whereas next-gen services are built from a shared pool of resources. In addition, legacy services were wholly-owned creations of

the service provider. A savvy CSP offers next-gen services that blend owned and external aspects. In this new generation, a service is essentially an application.

And how many services are we talking about? A few dozen? No. Yankee Group estimates that the typical CSP maintains over 1,000 unique services, and adds 5-25 services per year.

Just as Ford saw a problem, and solved that problem by rethinking the notion of the factory, so too should communications providers turn to the notion of a cutting edge factory to assist in meeting the needs of consumers. A service factory.

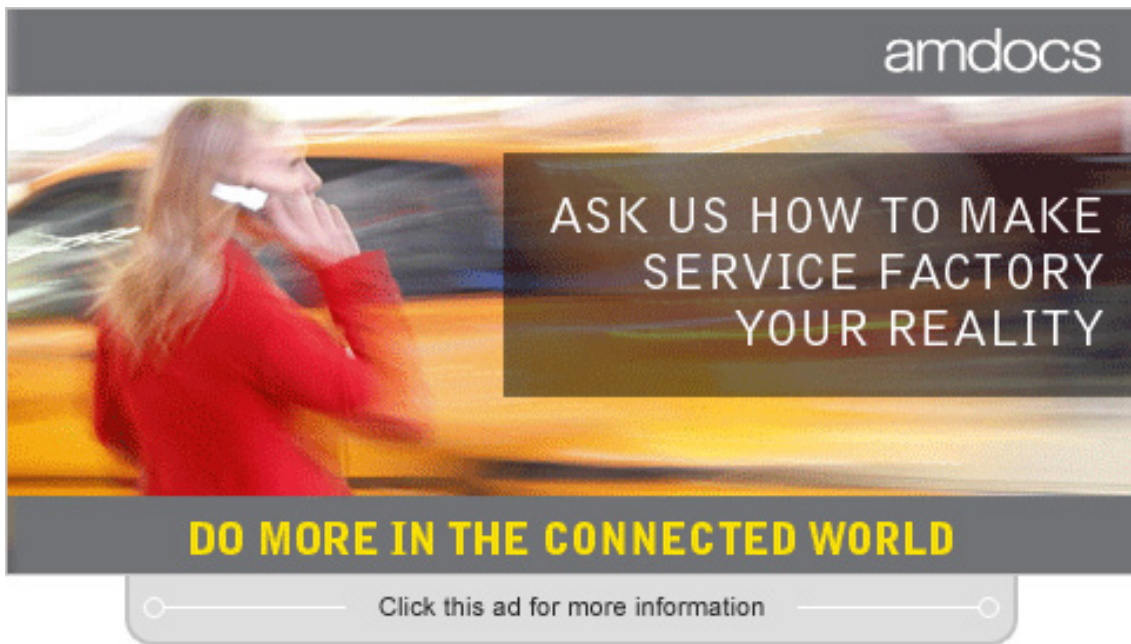The concept of the service factory has floated

around for several years, and has been used by analyst firms (Gartner, for example), CSPs (Deutsche Telekom and BT Group have employed the term), vendors (Amdocs chief among them), and publications like this one.

A service factory is, in essence, a production line

> **The concept of the service catalog is something we've been talking about in Pipeline for years.**

approach to service management. Getting there involves a number of steps.

Taking Stock

The concept of the service catalog is something we've been talking about in Pipeline for years. The extent to which many CSPs have no centrally maintained collection of products and solutions offered is a gigantic problem in the communications space. Analysts like Dan Baker of

Dittberner and Associates have championed the service catalog for years, and it has become widely recognized as an important element in exposing assets so they can be better utilized.

Such a catalog is central to the concept of the service factory. It's necessary to establish what

services and products are available in one central compendium in order for new services to be easily created.

Time, as the old adage says, is money. From this central catalog, service models can be constructed that can speed up the entire process of product launches. Therefore, service catalog and service modeling can drastically reduce time-to-market and, perhaps more importantly, time-to-monetization. Furthermore, a proactive approach to service inventory can help a provider understand what services are in play and where network resources can be leveraged most effectively.

Deliver

As a product catalog, service modeling, and service inventory can greatly speed the assembly of a new service, it's only fitting that this speedy assembly should be followed by speedy fulfillment. This is where automation really earns its keep.

First, the CSP must take the step of defining the specific parts of a customer order based on the components available in the catalog. Then, the CSP has to determine what services the end-user already has and what the network can feasibly deliver. Without these steps, a CSP runs the risk of over-promising service levels (which can turn into a huge customer retention headache) or duplicating services (which is a waste of assets).

Next, the order orchestration can take place. As we mentioned previously, most CSPs have one foot in the legacy environment and the other in the next-gen world. That means that a cross-domain management approach is essential for tying together seemingly disparate services.

Finally, the entire process can (and must) be overseen using real-time monitoring solutions to ensure that the services are working at their optimum levels, ensuring customer satisfaction and maximizing efficiency.

A Step Beyond

CSPs are in a tough spot. They need to maximize their agility, because they face threats from every angle. Whereas, historically, CSPs only faced the threat of other CSPs (within the same access-technology playground), modern CSPs face threats from other CSPs and over-the-top providers, as well. That competitive environment demands a level of agility that wasn't necessary in the past and that a service factory approach can help deliver.

The question some may ask is "Why now?" Why is a move to a service factory approach needed today? The truth is, a service factory approach was probably a good idea yesterday. However, given a much more complex and nuanced competitive environment, more complex service offerings, the speed at which new technologies are becoming available, and an overall economy that has end-users paying more attention than ever to quality and efficiency, the service factory promises an approach that can allow CSPs to stay ahead of the curve.

A service factory can make CSPs faster, leaner, and more responsive. In the current economic climate, these aren't just positive attributes: they're essential qualities. No longer can any company bear inefficiency if it wants to demonstrate and maintain a pattern of growth. A CSP must automate, consolidate, and deliver. Thus, by moving a step beyond, CSPs can stay a step ahead.