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## **Two-Sided Telco Operations Analysis: Overcoming Two Barriers to Rapid Subscriber Growth in Modern Telecom Ecosystems**

By Chun-Ling Woon

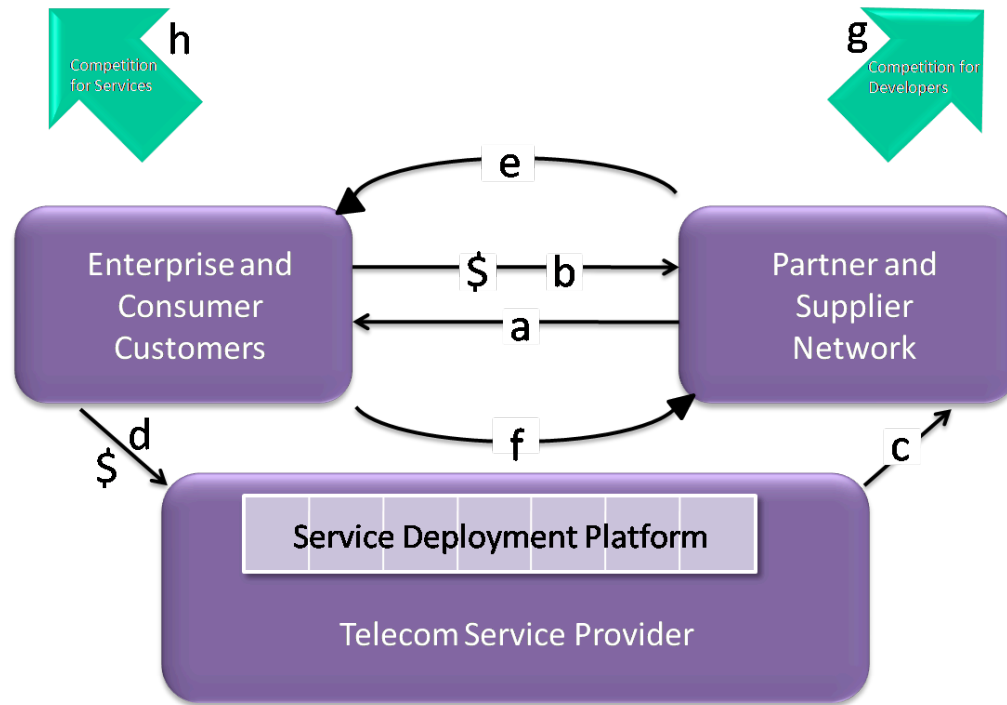
Seeking to strike a balance between remaining within their core competencies, while still generating significant revenues, many telcos today are looking to monetize “network platform” services like billing, location-based data, and security. Aspects of the business model to accomplish this task have been explored extensively in various forums, most recently by STL Partners’ Telco 2.0 initiative. In addition, coverage by a number of other analyst firms (such as Ovum), economic papers (like Evans, Hagiu & Schmalensee’s *Invisible Engine*), and a new book, entitled *Free*, by Chris Anderson all explore the changing business model.

Upon analyzing the above sources, it appears clear that the same pattern that has driven usage growth for platforms like the iPhone, G1 (Android) and personalized and social networking services can, in theory, translate to exponential growth in telecom platform services. If this growth rate can be realized, then the “just” in “just a bitpipe” could be removed; by sharing in a fraction of a large growth curve, telcos could reap significant benefits while remaining within their core strengths.

This has not materialized to date. Why not? In matching telco’s current practices against previous rapid-growth ecosystems, there appear to be two gaps: 1) OSS/BSS’s have not allowed services to be deployed quickly nor easily enough; and 2) carriers are over-charging for platform services because they don’t fully appreciate the multi-step cross-subsidization flows in ecosystem models.

This article describes how these two gaps can be filled, overcoming important barriers to significant growth within new business models. Consider the figure below:

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Here, independent partners and suppliers companies create (a) products and services that they sell to enterprise and consumer customers, and for which they obtain payment (b). These partners and suppliers are experts in specific areas, such as vertical markets like health care, finance, and manufacturing, providing added value because they understand the particular, unique needs of these industries. Partner products and services use, in part, services provided by a telecom operator (c), for which they pay at most a fee to cover costs (but which some operators may choose to provide at no charge). Service providers receive the bulk of their revenues from enterprise and consumer customers who, by the nature of the communication applications they purchase, must also purchase access to the network platform from the service provider (d).

As time goes on, partners and suppliers are attracted to participating in this “ecosystem” because of their perception (e) that there is a substantial market of potential customers who use this platform and to whom they can sell. Similarly, potential customers are attracted to use that service provider’s network because of a corresponding perception (f) of significant valuable functionality developed by third parties that can be obtained by doing so. In other words, partner and suppliers’ growth drives subscriber growth, and vice versa, in a positive feedback loop that in similar industries has proven to be highly lucrative.

Furthermore, this dynamic creates a “lock in” effect. Partners and suppliers are resistant to building solutions for other networks (g), while consumers are resistant to using other platforms (h). The reason in both cases: sunk costs. Customers have invested in a richly

functional communications infrastructure which would be at least inconvenient for a consumer to change, while being hugely disruptive and expensive for an enterprise customer. For partners and suppliers who have invested heavily in training, design, implementation and support all based on a given network platform, changing platforms would require significant re-investment in the alternative technology.

Critical success factors here—which are not consistently followed by telecoms—are as follows:

**The requirement for OSS speed and low cost, specifically in enterprise product catalog and order management:** Since service lifetimes are shorter than in the past, and margins smaller, telcos must be able to rapidly and cheaply reconfigure OSS and BSS systems to support functions such as order entry, order management, billing, provisioning, customer care, and others.

A graphic advertisement for ConceptWave. The background is a school of yellow and blue fish swimming in blue water. The text is white and light blue. At the top, it says "Let us *direct* your workflow". Below that, it says "ASK CONCEPTWAVE ABOUT ..." followed by a bulleted list: "• multi-play orders", "• exception order handling", "• centralized dynamic catalog", and "• processing millions of orders". At the bottom left is the website "www.conceptwave.com". At the bottom right is the ConceptWave logo, which is a stylized white wave followed by the text "ConceptWave". Below the graphic, there is a light blue banner with the text "Empowering Service Orders" and "Proven, high performance order and catalog management solutions." in a smaller font.

Let us *direct* your workflow

ASK CONCEPTWAVE ABOUT ...

- multi-play orders
- exception order handling
- centralized dynamic catalog
- processing millions of orders

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Empowering Service Orders

Proven, high performance order and catalog management solutions.

There is an emerging consensus that an order management system, in particular, serves as a linchpin for success in this arena, both because of the significant downstream costs of ordering errors, and because ordering systems are typically highly integrated to many other back office systems. “OM solutions have ... proven to be one of the key pain points for all CSPs,” says the Yankee Group’s Avi Banerjee in his July 2009 report, *End-to-End Order Management Automates the Service Provider’s Value Chain*. “Because most CSPs view order management as a strategic vehicle for differentiation, it comes as no surprise that it is an area of significant investment...”

Banerjee goes on to quote specific numbers reflecting current service provider reality compared to their near-term priorities: two arenas in which there are significant differences. The time to launch new services is still 90 days to a year, yet service providers desire “near real-time” ability to change an offer. An order requires 25 to 50 minutes for a

CSR to record, yet CSPs wish to deflect calls to self-service portals. The back-end order fallout rate is 15 to 25 percent, yet CSPs wish to push this number to zero. Modern order management systems can bridge this gap.

**The importance of the intangible perceptions (e and f in the figure):** These can be influenced by the service provider supporting marketing and “evangelism” efforts, which serve to accelerate the cycle shown.

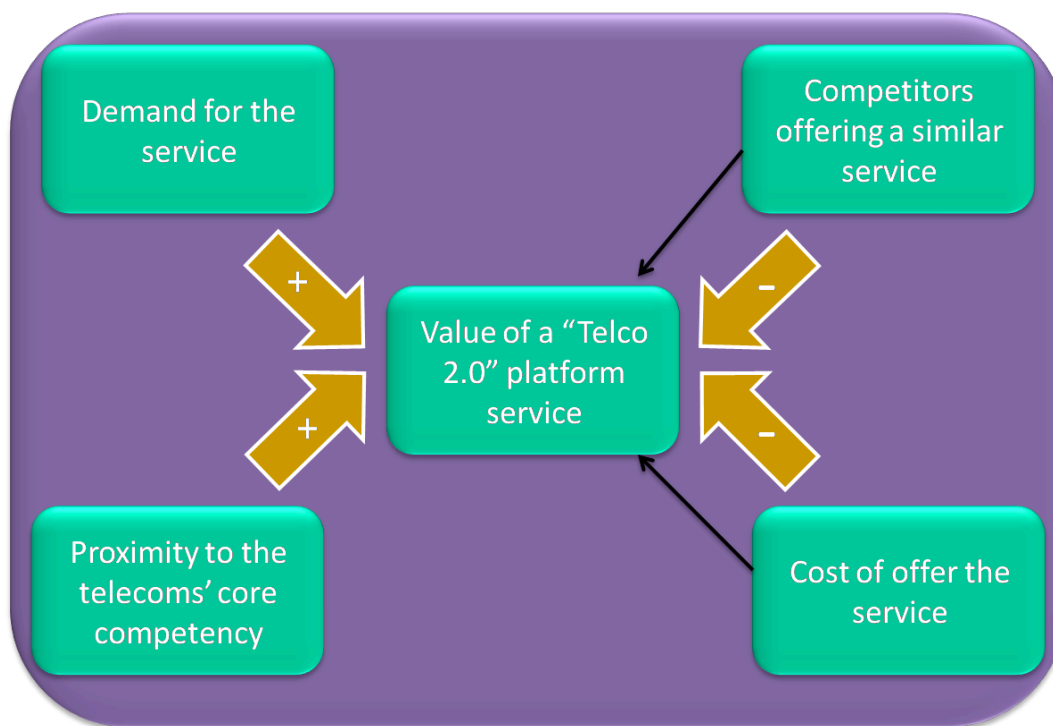
**The importance of offering low-cost services to partners and suppliers as the model is established:** Telcos must understand that the creation of the runaway dynamics in the above model involves two distinct phases. At first, it is critical to attract contributors away from competing opportunities through giving away (or providing at a nominal cost) training, conference, and other services.

That a “free” service could in any sense be a good idea—especially in the middle of a recession—is highly divergent from the traditional business models of many telecoms. However, the mathematics behind this practice is sound and case studies abound. See *A Survey of the Economic Role of Software*, also by Evans, Hagiu & Schmalensee, for a detailed explanation, and the Wikipedia article on two-sided markets for a good overview of the math. The previously cited books, *Free* and *Invisible Engines* contain dozens of examples from multiple industries.

**The importance of continuing to attract partners and suppliers through low-cost or free services as the model becomes profitable:** Continuing to support the partners and suppliers network (physical and virtual) remains critical in the second phase as well, where this investment pays off through rapidly growing customer and groups. Importantly, in both the growth and ongoing phase, charging partners and suppliers at any significant level for any services—including API access—can stifle their business models.

#### **Choosing the right set of platform services:**

Many analyses of platform services are limited to comparing the potential revenue from a service to the costs required to offer it. Both of these elements are essential; indeed the lower costs provided by a modern fully functional order management system overcomes the legacy cost structure that has to date served as a “show stopper” for the model discussed here. As this requirement is overcome, however, a deeper analysis needs to take place, as illustrated below:



As shown here, a full service-value analysis depends on competition and proximity to core competencies as well as cost and demand. For instance, billing, shopping cart, and security services are widely offered on the internet, so without the ability to provide a clear differentiator in this space, telcos would do well to avoid these arenas. In contrast, services that are both close to a telecom's core competency as well as not widely available from other sources have greater potential, all other things being equal. Location-based services fit these requirements, and so are amongst the first network services being offered.

All told, by understanding the factors that constitute a lucrative telecom service offering, working within an ecosystem, and using pricing and other practices that are informed by a deep understanding of the complex dynamics of these models, telcos have the potential to generate considerable revenue growth for themselves and their ecosystem of partners and suppliers. Business models that depend on even a fraction of an ecosystem-generated revenue stream have the potential to achieve what is the optimal business outcome for telcos; namely, to secure significant growth in revenues without having to devise business models that diverge too far from their core strengths.