

**New Generation OSS**

Barbara Lancaster

The Future, or Missed Opportunity?

blancaster@LTCinternational.com

The concept of NGOSS seems to be sound and worthy. But what are the chances it will actually happen? Our assessment is that the incentives for the vendor community to make it happen are not sufficient to deliver the industry transformation the NGOSS visionaries would like. The service provider community is likewise reticent. Is NGOSS going to become just another good idea shelved in the library? Or will it be a means for some enterprising company to achieve market leadership?

Today, the typical Operations Support System environment for a telecommunications service provider is likely to include at least six separate applications, working together (more or less) to support business functions such as service provisioning, billing, collections, network inventory and much more. In some large long-established Telcos there can be as many as 400 applications with the same business functions being handled by different applications for different services, or in different geographies.

The essential processes required to effectively manage a service provider have long been understood and quite well documented. The Telecom Operations Map, produced by the TeleManagement Forum (TMF), defines all the important operational processes at the network management, service management and business management levels. Although the basic thinking in the TOM has been around for some years, we find that the model still works: the TOM processes are still relevant and applicable in new service provider companies offering newer services such as VoIP, DSL and web hosting.

Despite the proven worthiness of the TMF approach, over the years very few application vendors have chosen to use the TOM building blocks as a guide to their systems' functionality. Very few service providers use the model as a rigorous framework for designing their operations. TOM is a useful piece of work that provides valuable insights for those who take the time to study it. But as a practical template for building a service provider business, it does not have many adherents.

On the contrary, what we find is that the commercial OSS applications on the market do not conform to common agreed standards for data, do not have commonly agreed integration points, applications overlap in functionality and the end solution is always less than the ideal defined in the original requirements statement.

It is not unusual for new service providers to have to pay way more than \$10 million US for software licenses and systems integration to establish a "starter" OSS environment. In our discussions with service provider executives, few will claim that these expenditures were great value for money. In most cases integration was less than perfect, time delays and budget overruns were common and the resulting environment requires more management and maintenance than was planned for. The impact of unplanned systems costs on new-start business plans has been significant.

Service providers pay a lot of money for what many consider to be inferior and immature solutions. Last year the WTO estimated the worldwide market for telecom OSS applications and integration services to be around \$20 billion per year. No doubt

that figure will be lower in 2002, reflecting the difficulties of the industry. But OSS is still a big market, targeted by hundreds of application vendors and systems integrators.

The lack of standardization and the resulting complexity brings extra costs for service providers. There is a high barrier to entry to the industry, and a long path to profitability for new entrants. This may not be lamented much by the incumbent players but they too have their problems: high levels of risk and uncertainty associated with any systems project, substantial effort, cost and uncertainty in launching new services, difficulty in achieving 271 approval. Ultimately all of this means higher costs for end users, or lower profitability for service providers, or both.

Some observers believe that the failure of the suppliers to the industry – vendors, integrators and, yes, consultants – to deliver cost-effective OSS solutions has been a major factor in the failure of many competitive service providers. Much more important for example than the often-blamed lack of cooperation by incumbents.

At the same time, all this investment in systems does not seem to have generated many benefits in productivity or customer satisfaction. A McKinsey report (January 2002) points out that industry productivity has hardly increased at all in the years from 1995 to 1999. And even that small increase is attributed to management initiatives rather than automation per se.<sup>i</sup>

So enter New Generation Operations Support Systems – NGOSS – as a proposed way to create standards for systems, data, and processes to support efficient and cost-effective OSS choices.

NGOSS™ is the term TMF uses to describe a “loosely coupled” distributed component architecture along with functioning application components upon which a communications service provider business can run. The components interact through a communication infrastructure and can be programmed through the use of a process management tool to control the business processes of the service provider using the functionality provided by the components.<sup>ii</sup>

Sounds great – and we believe that like TOM, NGOSS is essentially sound thinking. For service providers widespread adoption of NGOSS principles would mean:

- Dramatically reduced cost to acquire, implement and maintain “plug and play” OSS components
- Much better end to end control of business processes linked to support systems
- Reduced time to market for new services, which would be quickly and easily supported by off-the-shelf components.

So when will it happen? Who will make it happen? Will the service providers, who arguably have a lot to gain, get together to drive standardization, as they have done over the years with much success at the network element level? Will the vendor community work together to achieve a common benefit? Or will one or a small number of vendors decide to use NGOSS as a way of transforming the market in order to achieve dominance?

For Software Application Vendors NGOSS means a significant change in direction and culture, and a lot of hard work. They will have to create new applications (or rewrite existing) to new standards (once they are defined in sufficient detail). To some extent they will have to trade the freedom they have just now to define the scope and

functionality of their systems for the benefits of working in an open, standardized environment. In an NGOSS environment, service providers will be more inclined to pick and choose between smaller functional modules, so increasingly the success of "solutions" will be seen to depend on clear adherence to the standards that support interworking. Vendors will become more dependent on each other for success, and there will be fewer hiding places for the inadequate. The opportunities for new application vendors will increase as the environment becomes better defined and competition will increase.

For systems integrators, NGOSS mean – possibly – higher profitability as projects become less risky and more repeatable. On the other hand, system integrator total revenues should be reduced dramatically. (If they don't most service providers will be very disappointed.)

The incentives for application vendors and systems integrators to drive the market purposefully towards NGOSS are not exactly overwhelming. The dominant players may be planning behind the scenes for NGOSS and make the right sort of supportive pronouncements, but we can understand why they in their hearts they might prefer the new generation to be a long time coming.

The leading industry initiative driving towards NGOSS is Catalyst. This involves only twenty (?) companies working on a small number of initiatives – for example the "Fine Grain" program supported by Worldcom. The participating companies report progress twice a year at the TMF conference. As far as we are aware, no major software vendor or systems integrator positions NGOSS centrally in their development strategy or business strategy. And while there are some newer players who clearly are enthusiastic about the concept, they are not going to invest a lot until some detailed NGOSS development standards are available and there are clear signs that the investment will pay off.

It seems to us that as of today there are no compelling reasons to believe that NGOSS will radically transform the OSS industry in the foreseeable future.

There will be some increasing acceptance and application of NGOSS at the network and element management levels, because application vendors in this space are more accustomed to working within a standards-oriented environment. We believe that acceptance is likely to be increasingly slow as we move up through the TOM layers – the objects are heavily impacted by business logic and achieving consensus in this area is somewhat more difficult than when dealing with network elements. Human behavior is less predictable and less programmable than the behavior of network components.

Additionally, in the business and service layers, there is still a feeling that maybe some market edge can be achieved by working differently (not necessarily smarter or better). Business logic implementations may initially be inclined to be fuzzy and it will take more time to evolve a substratum of agreed well-defined business logic to support true realization of the NGOSS vision.

In summary: NGOSS is great in theory, but the business and commercial incentives to make it happen are not strong. It is not an easy transition, and there is not yet a critical mass of vested interests trying to make it happen. So while we can say that implementing NGOSS is a rather good objective, its worthiness is no guarantee of success. NGOSS needs a real champion, with muscles, if it's going to happen.

If you're involved in running a Service Provider company, and your expenditure on systems appears to be out of all proportion to the benefits achieved, then perhaps you

should ask yourself how much time and effort and money your company would have saved if you had been able to shop around with confidence for a set of OSS applications *designed from the ground up to work reliably together*. How much management time and attention could have been spent on working to improve customer service and business performance if resources had not been diverted to handling the pain of systems implementation and the impacts of failure and non-delivery. If you come to the same conclusion as others we have talked to, you will start to think of ways you can push the industry towards NGOSS even if (dreaded thought) it makes entry easier for new competitors. It might still be worth it.

If you have invested in a Service Provider company, then have a thought about where all the money has gone. Did you really expect so much of the money you handed over to go straight to systems integrators, consultants and application vendors? The inadequacy of the solutions available has impacted your investments. Do you also invest in application companies and system integrators? If so, your attitude to NGOSS might be a little conflicted right now – understandably.

If you run a software vendor company or a systems integrator, are you playing safe along with everyone else? We can't blame you for being prudent, keeping your eye on the market and aiming to be a follower, but only when you have too. But someone out there maybe sees the future as being other than "more of the same". We understand that going wholeheartedly for NGOSS might be a big gamble, but we'd applaud the company who would go for it, and if it pays off you would richly deserve the market leading position you would achieve.

We have based our rather pessimistic predictions on the future of NGOSS on the fact that we see neither a strong concerted effort from service providers, nor any company on the supply side who plans to use NGOSS as a route to market success (or dominance).

However things can change. Should an 800-pound gorilla decide to play, the game will change entirely. Any suggestions?

#### **About LTC International**

LTC International is a very special company in the telecommunications industry. Our professionals work with service providers, market investors and industry suppliers to accelerate success and remove uncertainty. We focus on the people, strategies, technologies, processes and systems needed to run successful network and customer operations in telecommunications and information businesses.

For more information about LTC, and other *Inside Out* articles,  
please visit our web site <http://www.ltcinternational.com>  
or contact our US Office +1 972 234 8997.

---

<sup>i</sup> [http://www.mckinseyquarterly.com/ab\\_g.asp?ar=1151](http://www.mckinseyquarterly.com/ab_g.asp?ar=1151)

<sup>ii</sup> <http://www.tmforum.org/browse.asp?catID=397>