ExperiaSphere™ News

May 15, 2008. This week, we had a day meeting with a major common carrier (network operator) to exchange views on the direction the industry was taking, and on the specific needs of network operators in optimizing their position in the market of the future. During this meeting we presented the ExperiaSphere approach and discussed its application to various standards activities and to the needs of operators.

One interesting perspective from the meeting was the fact that there are a variety of different ways in which network operators look at the problem set they confront in the current services market:

> The "Infrastructure Perspective" which has tended to focus on the transformation of networks from TDM or ATM to IP or Ethernet. This perspective seems to think of problems in terms of "convergence" and how to optimize it.
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> The "Competitive Perspective" which has tended to focus on the changing role of the carriers in an industry that seems to be focused on anointing competitors. This perspective talks about "over-the-top" and "disintermediation".
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> The "Opportunity Perspective", which is only now emerging and which focuses on transformations in business practices needed to create a new ecosystem, and on how the traditional carrier player could hope to win in such an ecosystem.

A given carrier will normally hold all three perspectives somewhere, and since many of the organizations within a carrier have largely autonomous missions it is common to see standards and initiatives supporting all of the perspectives launching and active at any point in time.

We believe that there is an interesting trend that is converging these perspectives today, a trend that was launched by the launching of the third perspective and the tendency for that perspective to be driven by senior management. The dynamic emerging is something like this:

> Convergence in a network sense requires parallel reformulation of service/business planning because the process is not transparent to the customer and because it is also largely dependent for its justification on fundamental demand shifts, such as consumer broadband, that the carrier is not able to control. A new service layer is needed for converged networks, and a new set of management and business practices are needed to support it.

> Over-the-top players have been able to grasp emerging opportunities, or even develop them, at a pace the carriers cannot match. This has resulted in the growth of services that contribute traffic and some connection revenue to carriers, but which largely fatten the coffers of the emerging Internet companies. A new relationship with these emerging market-makers is essential, and that new relationship will likely have to be based around a combination of a set of "wants and haves" from each player and a framework in which the two groups of industry players can support a value exchange.
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> The long-term industry trend toward privatization or deregulation changed the regulatory framework of the carriers, but not so much the financial framework. Carriers still plan in a horizon measured in decades and have capital/depreciation cycles three to eight times longer than similar cycles in other areas of the market. They also have public-utility-like internal rates of return, which makes low-ROI projects attractive. The inertia of the carriers after deregulation was the proximate financial trigger for the creation of the over-the-top players. These players have a dazzling ability to respond to every market trend, but their venture-financed nature makes them focus on very high risk, high-return opportunities. This has created a stratified market structure with a lot of new services relying on projects, and activities that fall between the two classes of players.

We think this is an interesting formulation because it's both consistent with current market developments and indicative of the correct course for the industry in the future. Google and other Internet Information Companies (IICs) need a set of enhanced capabilities that the network operators are uniquely positioned to build by their incumbency and their low IRR, which lets them invest in that critical middle zone of projects. The network operators need these services to augment their revenue from connection and transport, given that revenue per bit is falling at 50% or more per year. Google's Android concept and its "bid threat" in the 700 MHz auction was, under this paradigm, an attempt by Google to push for that middle-zone investment. Operator interest in things like the IPsphere Forum and the TMF SDF activity are indications that they are interested in pursuing cooperative ventures for services of any sort, providing the business and management framework for cooperation can be developed.

Standards are expected to play a role in this framework, according to our contact, but not the role many expect. Carriers view standards not as a means of addressing opportunity but as a means of controlling cost. A standardized framework allows competitive bidding of infrastructure components and thus insures low prices. The downside is that standards may evolve too slowly to address opportunities.

This is what we think is the key insight of our visit. **Since the real driver behind changes in networking today is the closing of the gap between the low-inertia, high-IRR players and those with high inertia and low IRR, the "inertia" of the solution**

itself has to be low, meaning that it must somehow dodge the delay of the standards process.

Set in this context, an open source approach like ExperiaSphere could be the solution. Because it's open source, ExperiaSphere has the advantage of standards-based technology in creating competitive implementations. Because it's open source, ExperiaSphere has the advantage of Internet technologies in its ability to draw on Web-speed innovation through the harnessing of the Web's innovators, the open developer community.

Eventually, our contact made clear, formal standards will come along to influence the mission of that middle-zone cooperation. Both the IPsphere Forum and the TMF have activities underway to shape those standards, but it is very clear that neither set of standards will be fully refined in 2008 and frankly we doubt they'll be ready in full in 2009. By that time, the industry will have adapted to the problem in some way, likely through measures that will further disintermediate the carriers.

From what we heard this week, we think that it is very clear that the network of the future will be a partnership between high- and low-level (in OSI terms) players. However, we think that the steps taken to create that partnership in an optimum way **must be taken by the carriers**. There are many ways to shorten product and planning cycles to allow you to address a project set whose ROI is higher than your current IRR. The financial markets will reward your success. There are no rewarding ways to address projects that require you to invest at a rate lower than your current IRR because the financial markets will then punish the decision and you'll lose access to the capital you need. This doesn't mean that the carriers have an edge on Google; it means that the optimum cooperation of the two classes of players for the good of both, and of the industry, depends on initiatives that the carriers are in a unique position of being able to drive.

There are pieces of this middle zone that we can already visualize and articulate—location services, presence services, identity, and even customer demographics. For the network operators, exposing these generates new revenue from their use. For the over-the-top players, each of these exposures generates a new realm of opportunity that raises their own revenues. For the industry, the size of the pie gets larger and market opportunity for vendors expands. Every day that we don't have a solution to the middle-zone problem is a day of lost revenue for all, and so there is a strong incentive to solve that problem.

Is open source, like ExperiaSphere, the solution? Our meeting didn't produce that kind of validation, but what it did produce was recognition that no other solution was visible on the horizon. They'll take too long, and the market will pass them by.

We believe that we can use this information, and our contact carrier organization, to help get ExperiaSphere a hearing in the marketplace. We'll keep you posted.

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