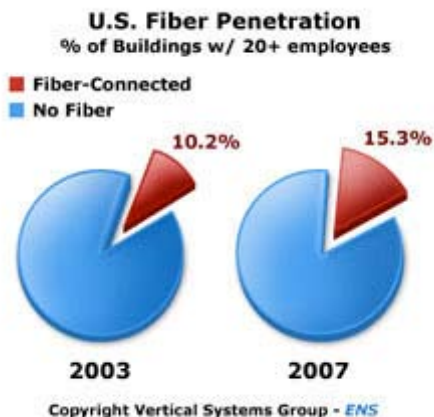


## How to Balance Standards & Innovation

By Michail Tsatsanis

### Situation

Our startup Company was in the process of developing innovative data transport equipment with significantly higher performance and data speed compared to other existing solutions. The equipment provided a solution to the “last mile problem” of connecting offices and businesses to the internet, and the intended customers were communications service providers. For high speed networks it is preferable if those connections consist of fiber links, however, there is a large installed base of copper telephone wire connections. The Company’s innovative product provided a high speed data transport system using existing copper telephone wires and helped providers delay the capital equipment investments associated with street trenching for fiber deployments.



More so than any other industry, standards compliance is paramount in telecom where devices have to interoperate with a host of other devices in the network. The Company was facing the challenge of implementing its innovative technology in coordination with successful standardization of its key elements.

Standards compliant equipment is part of the expected product, once the offering moves beyond the innovators into early adopter customers, because compliance assures a number of important benefits:

- It lowers the technical risk by developing open technical specifications, vetted by technologists from across the industry
- It accelerates economies of scale earlier in the adoption cycle
- It encourages multiple sources of a generic product with lower price points

Unfortunately, the standardization process created a significant impediment in the business plans of our startup Company with an innovative product. Time to market and speed of development were our key differentiators against larger incumbents in this fast moving market (the other differentiator being IP protection). The standardization process, however, threatened to reduce our time to market advantage, or worst case, permanently exclude our technical solution from the industry standard specification.

### How Technology Marketing Course Concepts Apply

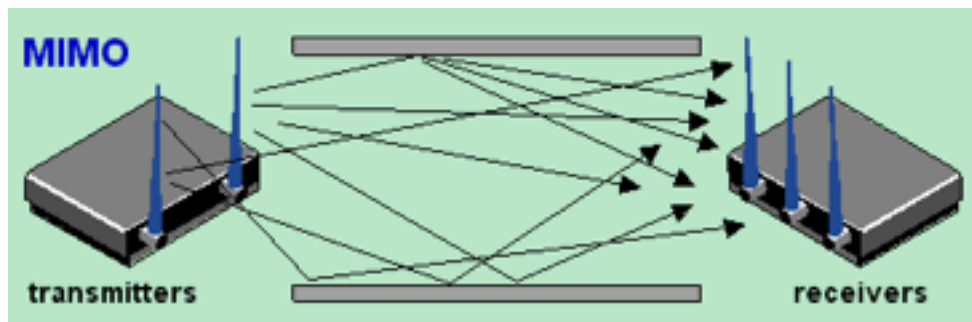
Standards compliance is part of the Expected Product and therefore has to be factored into the development strategy for a complete and competitive telecommunications solution. Like most technology-driven start-up companies, however, my Company’s competitive strategy was to deliver an Augmented Product based on differentiating technology. So that is the quintessential challenge of high tech start up companies: how do you bring technology innovation to market quickly in a standards-driven industry controlled by large incumbents?

We realized that our Company did not command the resources or market clout to be the major driver of all aspects of the product’s standardization. Our strategy had to be cognizant of that reality, have appropriate

objectives, be adaptive and opportunistic, and circumvent standardization problems rather than frontally assault them. We had to successfully implement a focused and stealth Guerrilla maneuver with respect to customer support for our standards strategy.

### Strategy

Our Company addressed the standardization challenge with a two pronged strategy. First, we implemented our key differentiating technology (an interference mitigation technology called MIMO that dramatically increases the data carrying capacity of telecommunication transmission, in this case, over copper lines) on the receiver part of the transceiver system. In that way, no special coordination with the transmitter part of the communication link was needed and the system could be made to interoperate with other third party systems. In other words, the Company limited its exposure to standardization requirements by implementing its differentiating technology in parts of the design not affected by the standards.



Second, we based our product design on a well accepted industry standard which required only small modifications to support the application we were targeting. Even so, a detailed plan of action was executed to assure that the required modifications were accepted by the industry standards committee as part of the final standards recommendation.

### Tactics

The Company faced stern opposition from incumbent vendors in accepting the standards modifications needed. The Company was successful in overcoming these objections only after a two year standards confrontation that followed these stages of escalation:

- Establish technical credibility: The Company engaged its top engineering talent in the standards process and over time created an image of a well respected technical organization, populated with leading experts in their fields.
- Address all technical concerns: After a technical proposal was put forth for a modification of the standard, a number of technical objections were raised by incumbent vendors. The Company had the patience and determination to devote the resources needed and address/rebut all concerns with convincing technical work and presentation of results to the technical community.
- Enlarge your base of support: The Company was successful in earning the support of most participating companies in the standards committees (which did not have a stake in the particular outcome), through diligent technical work as well as intensive private relationship building.
- Coordinate decisive customer intervention: Despite majority support, a stalemate ensued as the proposed modifications were not accepted by a few of the incumbent equipment vendors. At that point, the Company surprised the incumbents by gathering support from the customer base (large telecommunications

providers) and was successful in having them articulate the importance of the proposed modifications in their vision of the evolution of their access networks. This coordinated response from the leading customers was the catalyst for breaking up the stalemate and dispersing any remaining opposition.

### **Results**

The Company was successful in obtaining the standardization concessions required for their products to be standards compliant. The combination of modest objectives, hard work, patience and detailed strategy paid off.

### **Lessons Learned**

The first lesson for startups is “don’t bet the farm on standards”. The Company was innovative with the implementation of the technology, so that it minimized its exposure to the standards process. The second lesson is that standards battles are long, uncertain and require a well executed plan. Do not underestimate the resources required and the time it will take to move the standard your way. The Company set out modest goals and worked methodically over a period of two years to achieve success. The third lesson is that winning support from leading customers is paramount to successfully influence the standards process.