R.I.P. O.N.A.

Henry D. Levine

Columbia Institute for Tele-Information
Graduate School of Business
809 Uris Hall
Columbia University
New York, New York 10027
(212) 854-4222

MORRISON & FOERSTER

R.I.P.   O.N.A.1/

Henry D. Levine
Morrison & Foerster
May 1992

ONA is dead. What began as an innovative network architecture evolved into a policy and is now little more than a slogan. This article examines how and why that happened and what it means for Enhanced Service Providers ("ESPs"), local exchange carriers ("LECs" or "telcos"), users, and the FCC.

Roots

The open network concept can be traced to the rise of the personal computer, but Open Network Architecture ("ONA") as we know it dates from a provocative 1986 article by then-FCC Chairman Fowler and two of his aides that called for a fundamental unbundling of basic communication services.2/

The Bell System had long been prohibited from offering services that combine data processing and communications (usually termed enhanced for information services). Separation of transmission and content was grounded in the widespread belief that the telcos' monopoly over much of the former would allow them to discriminate or cross-subsidize (and thereby compete unfairly) in providing the latter.

As articulated in Fowler's article and the early stages of the FCC's Third Computer Inquiry, ONA was the keystone of a grand accord under which the Regional Bell Operating Companies ("RBOCs") would be given the right to offer services that combine telecommunications and data processing in concert with basic telecommunication services. In return, the RBOCs would be required to unbundle their

---

2/ Mark S. Fowler, Albert Halprin, James D. Schlichting, "Back to the Future: A Model for Telecommunications." 38 Fed. Comm. L.J. 145 (1986).

the three years since the FCC accepted the RBOC model telcos have taken to citing it as precedent for their continuing refusal to unbundle new services or design network enhancements (such as the Advanced Intelligent Network) in an unbundled manner.

The second blow to ONA was the FCC's willingness to abandon the requirement of a "level playing field." Over the strong objections of most of the telecommunications industry, the FCC approved ONA plans that built in structural and marketing advantages for their RBOC authors. The most visible examples involve access to Customer Proprietary Network Information ("CPNI"), which includes most of what a telco knows about its customers and their communications needs other than their White Pages listing, and the collocation of independent enhanced services facilities in RBOC central offices.

In its ONA orders the FCC found that the efficiency-related benefits of presumptive RBOC access to proprietary customer data or central offices for the marketing and provision of enhanced services would be so substantial that the public interest required granting such access. Simultaneously, it ruled that the benefits of independent ESP access to CPNI or central offices were small enough (and the attendant administrative costs so high) that it was not in the public interest to require the RBOCs to give unaffiliated enhanced service providers collocation rights or presumptive access to CPNI. The industry (except, of course, for the RBOCs) went ballistic, arguing that it was inconceivable that CPNI and collocation could be both so valuable that RBOC enhanced service units would be crippled without them, and so worthless that competing ESPs would not be harmed by their absence. The FCC was unmoved.

The third and final nail in ONA's coffin was the pricing decision announced by the FCC last June. The pleas of enhanced service providers and large users for cost-based pricing for interstate ONA access lines were treated as demands for discounts or subsidies and summarily rejected. The Commission ruled that enhanced service providers can continue to subscribe to local business lines, but if they want to buy ONA features/functions, they must purchase ONA access at a price that is two to three times the $50-75 per month that business users currently pay (on average) for the local lines or PBX trunks that ONA access circuits would replace. No one -- least of all the FCC -- claims that current business line rates are subsidized or otherwise underpriced. Increasing rates to an average of $150-200 per month would therefore impose huge, economically

The RBOCs are now on the verge of acquiring the right to compete in markets to which they are bottleneck suppliers under conditions that will make it comparatively simple for them to disadvantage competitors. Those competitors, far from embracing or planning for the advent of ONA, now spend much of their time preserving the right to ignore ONA and continue to take basic, bundled services so that they can meet their customer's needs without facing economic ruin. It is ironic -- but true -- that many enhanced service providers consider it important to preserve the irrelevance of ONA as currently configured, so that it does not become a millstone around the neck of network evolution.

The Future

Notwithstanding the problems of the moment, I am optimistic about the prospects for opening up the public network and taking advantage of its growing capabilities to deliver enhanced services.

First, some of the structural defects that are crippling ONA can (and will) be fixed over time -- if not in ONA proceedings, then in others with overlapping goals. Thus, the FCC recently revised its CPNI access rules to make them somewhat more equitable by requiring advance written consent from large customers (whose with more than 20 access lines) before any ESP -- whether or not affiliated with an RBOC -- can access that customer's proprietary network information. It doesn't mitigate the RBOCs' marketing advantage to small and middle-sized users, but it's a start. The Commission's expanded interconnection proceeding offers the hope that it will soon follow in the footsteps of New York State and order the RBOCs to provide actual collocation (or its equivalent). At the same time, the Commission may, in its intelligent network docket, direct the RBOCs to deploy new technology in a fashion that promotes -- rather than precludes -- network modularity. Success in those dockets will meet a critical prerequisite to the unbundling and enhanced competition that ONA was supposed to bring about.

Second, the RBOCs themselves should eventually come around. Some telco executives have already realized that their best prospects for substantial revenue growth do not lie in information services per se (i.e., the control or manipulation of content) but rather in the provision of enhanced transport to many users, most of them unaffiliated. The RBOCs' comparative advantage lies in carrying other peoples' signals, and they will prosper if those other people ship more messages because the RBOCs have made

My optimism is not unqualified, because ONA includes the seeds of further threats to the Information Age. One such threat is the possibility that new features or enhanced network functionalities will be introduced by the RBOCs only as BSEs, and will therefore be available to users only in conjunction with overpriced ONA access lines. Like offering airbags only on automobiles costing $50,000 or more, that would delay the widespread implementation of key enhancements.

The second threat to real progress is that no one will buy ONA services except for interexchange carriers, who have no alternative to overpriced carrier access lines and for whom ONA is therefore "cheap." Instead of taking that as a sign that the product is expensive and dysfunctional, however, the FCC could (wrongly) conclude that there is no demand for an open network. If airbags are offered only on $50,000 cars and few such cars are sold, a regulator could attribute that outcome to disinterest in airbags rather than the price of the car.

The prospects that tantalized users and information service providers in 1986 -- software collocation, virtual central office or peer-to-peer status, access to operation and support systems for internal network management, and the ability to use network components in the most efficient manner -- have not been and will not be delivered by what we now call ONA. But other proceedings and new technology offer ways to reach these goals. We still have time to create a public network that meets the needs of the exploding data processing and data communications industries.

ONA is dead. Long live ONA.

RIP (HDL1)