BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D. C.

In the Matter of
Filing and Review of Open Network Architecture Plans

) ) CC Docket No. 88-2 Phase I

COMMENTS OF

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NEW YORK STATE PUBLIC SERVICE COMMISSION

By Public Notice released January 19, 1988, the Commission invited public comment on the Open Network Architecture plans filed by the Regional Holding Companies (RHCs) and American Telephone and Telegraph Company (AT&T) on February 1, 1988. As a Member of the New York Public Service Commission, I submit the following comments. The New York Public Service Commission regulates the New York Telephone Company, the local exchange telephone company owned by NYNEX.

This is not a dissent, a concurrence, or a majority opinion. The New York PSC did not discuss or vote on this ONA proceeding. In contrast to most states, filings to the FCC by New York State are not by the policy-setting Public service Commission itself, but by the Department of Public Services, i.e. by staff, and
approved by the Chairman as head of the Department.  

In this case the Department decided not to submit comments with the FCC at this time, due to considerations having to do with ongoing litigation. However, I feel it my obligation as a Commissioner in an issue vital to the state's local telecommunications structure to submit substantive comments to the FCC.

It must be stressed that the since the Public Service Commission has never discussed this ONA case or taken a view on the subject, these comments are solely those of an individual Commissioner. They do not necessarily reflect the views of, and must not be attributed to either the Commission as a whole or the Department.

Realistically, any set of comments can touch only lightly on the 7000 plus pages and 101 appendices contained in the recent ONA plans filed by the seven RHCs and AT&T. A large number of issues are identified below, often without a recommended solution. There is, however, no need, nor is it advisable, for the FCC and the states to resolve all the questions in advance in one giant rulemaking. These can be addressed in detail as the process unfolds. Only the mechanism of dispute resolution -- both between jurisdictions and within industry participants -- should be a precondition for moving to an ONA environment.
Introduction

State regulatory commissions have only begun to explore ONA. New York and Maine have proceedings, California has a task force, and several others are studying the subject. All eyes are on the FCC because of its ongoing rule-making, and some states harbor suspicions reserved for ideas initiated by the FCC. Others view ONA primarily as an attempt to unchain the BOCs. The FCC, for its part, sends out mixed messages to the states. These perspectives, supplemented by mutual incantations of jurisdiction, will not get the issues developed. States must get involved in the substantive policy analysis of ONA issues beyond the jurisdictional question if they are to have a constructive role to play in the potentially far-reaching interconnection developments that are affecting their traditional role in exchange services. And the FCC must deal with them as a partner, under a mechanism that balances the important but often conflicting values of uniformity and diversity.

In a narrow sense, ONA is a process of granting equal access to enhanced service providers (ESPs), couched with further opening of enhance services to provision by Bell Companies. But to understand ONA properly one must put it into a broader context. For two decades now we have witnessed the erosion of a centralized and uniform monopoly network. Public policy tracked fundamental trends based on changes in the
underlying economy and technology. These changes were first manifest in the United States, later in the UK and Japan, and are now reaching Western Europe. What is emerging is a system of great institutional, technical, and legal complexity which may be best described as a network of networks, serving different regions, user types, and software layers.

In such an environment, the rules of interconnection of newcomers to the public network becomes perhaps the most important tool of structural regulation. The old Bell system achieved predominance by denying its local exchange competitors interconnection to the Bell local networks and to its long lines system, until it was forced to open up. (See G. Brock, "The Telecommunications Industry: The Dynamics of Market Structure," Harvard University Press, Cambridge: 1981). More recently, AT&T was dismantled partly because of its hold over equal access for its interexchange competitors. Whoever controls the rules of interconnection controls the network system itself. ONA deals with interconnection on the level of exchange services, and is the next logical step in the evolution of the network. The question is who controls the rules for such ONA interconnection: the FCC, the states, or both. For the FCC to establish a federal predominance over interconnection to local exchanges is to establish federal control over local networks themselves since the contradictions in treatment of largely identical service elements would not permit a stable dual regulatory system to
coexist over time.

This leads to four major options:

(a) an expulsion of the states from area, which would create major political battles, deprive the policy field of a major source of innovation and experimentation, and eliminate an important element of policy stability.

(b) a full federal withdrawal, which could lead to a telecommunications-Lebanon facing a world of telecommunications-Japans;

(c) non-cooperative coexistence characterized by continuing litigation, delay, uncertainty, and manipulation by various industries' forum-shopping, and ultimate instability. Or

(d) an institutionally collaborative approach, as outlined further below, which establishes a balance between national uniformity and regional and local diversity.

There are, of course, important industry groups who desire policy uniformity to complement technical standardization. Those arguing for either or both are usually counting their obvious benefits but not considering their more hidden cost in terms of innovation, flexibility, and process. It is contradictory to accomplish industry diversity by a policy monopoly. A more careful analysis establishes the need for a system in which uniformity and diversity coexist, as is true for much of the economic system of this country.
There was a time, only about two years ago, when several of the Regional Holding Companies embraced ONA as a vision of the future. Some of their Computer III filings before the FCC showed innovative thinking: They combined the opening and disaggregation of the central office functions with deregulation and entry into information services. Perhaps for the first time they proposed making it easier for their competitors to access the network. They seemed to understand that the network was their most important asset, and that its intense utilization was in their own best interest.

But now, in their February ONA filings, a more cautious spirit has taken over. In fairness, the FCC gave the RHCs little time to plan or implement. Hence, the plans, while a step in the right direction concentrate on the here and now, and largely repackage existing offerings or those features already contemplated. Possibly, Judge Greene’s initially more negative holdings on RHC participation in information services also had an impact by reducing the quid of new deregulated opportunities for the quo of opening the network to further interconnection. Possibly, too, the RHCs wanted to keep down the cost of the unbundling process. Whatever the reason, the filings do not deal with several of the longer-range implications of ONA which the FCC should contemplate.
These long-range effects include:

* a future competition in exchange services, including potential incursions across franchise territories by other LECs’ exchange services and even facilities.

* a major enhancement in the possibilities of bypass and of private networks.

* built-in strains between the main elements of LECs -- local transport and exchange -- that could lead in the future to a full-scale structural separation.

* a move towards a "distributed" rather than centralized physical architecture of public central office functions, analogous to the computer industry’s evolution into distributed processing.

The Problem of Bypass

The RHC filings talk almost exclusively about access for Enhanced Service Providers, thus giving the impression that ONA is only software networks. But the principles of interconnection and unbundling really go much further. The FCC has already decided that interstate ONA elements, while based on expressed ESP needs, should be available to anyone, not just to ESPs. This could -- now or later -- include also a wide array of interconnectors with interstate traffic, such as AT&T, the OCCs, long-distance re-sellers, facilities bypassers, private networks, independent telcos, cellular operators, RCCs, other
BOCs, and even international or foreign carriers.

This has major ramifications. For example, bypassers could transport interstate traffic (on their own or on leased lines) to the LEC's exchange, have it switched there, and take at least the interstate part (depending on state rules) of the rearranged traffic to its destination. Similarly, they could use the LECs' subscriber lines and switches as a feeder system for their own trunks to major destinations, including to interexchange companies. The distinction between private fixed networks and public switched ones would blur further. Competitive regional and local exchange companies could rapidly emerge, in particular if states adopt intrastate rules similar to the federal ones. And LECs may start to compete with each other for the business of switching the traffic of bypassers, independent telcos, or cellular operators. Interexchange carriers, similarly, could in effect enter local distribution.

These are ONA scenarios for the future, though not a very distant one. They continue trends begun by the emergence of powerful PBXs and private networks, shared-tenant services, and bypassers. But they make further entry more readily possible for small users. These changes must not be viewed as necessarily negative if they would lead to substantial technological innovation and cost efficiencies, and if the new networks, too, would have to support basic service for the poor. In any event,
if the experience of two decades is a guide, such developments cannot be prevented in the long run by regulatory means; but they can be channeled to affect an orderly transition. To deny states a role in this issue is to deny them a substantial part of their ability to affect the nature of local service. Conversely, to leave ONA interconnection entirely up to each state could create problems of incompatibility. Local service is traditionally a state concern. Here, this responsibility overlaps with a federal policy of assuring unobstructed interconnection. Reasonable federal-state accommodations must be worked out.

In the absence of assured regulatory protection, the BOCs are pursuing their in-house containment strategy, which seems to avoid, if possible, the rental of pure switching functions. The FCC intended ONA as an aid to competition and innovation. A fundamental direction was that local exchange companies unbundle exchange services into discrete Basic Service Elements (BSEs) that could be bought separately and as needed by users. However, apparently to prevent pure transport interconnection or line termination, or to avoid ESP exchange access through other carriers that would permit the piece-mealing and bypassing of their networks and challenge the existing pricing structure, the RHCs now uniformly seek to establish something called BSAs, (Basic Serving Arrangements). BSAs consist of two or three elements: an access link from the interconnector to the central
office; basic central office functions; and transport between central offices. Different types of BSAs are offered, analogous to present access line arrangements, such as circuit and packet switched service or private-line circuits. By establishing BSAs the RHCs in effect side-step an important part of unbundling. To mix metaphors, they unbundle the bells and whistles, but not the meat and potatoes. Basic switching is not considered a BSE, only the feature add-ons are. And in order to get a BSE, one first needs a BSA, too. Sometimes BSEs require a particular BSA, such as a private line.

Unbundled access, however, is what some users desire. This is what the issue of "collocation" on LEC premises is about. The LECs resist, arguing that physical access by any other carrier could create operational problems. Collocation raises a whole host of pricing, logistical, and technical issues that are too lengthy to consider here. One response has been to suggest "virtual" collocation, the "virtual central office," "mid-air meets" or some other surrogate access to LEC premises. There is very little about collocation in the ONA filings. The FCC has refused to mandate physical collocation because it believes there may be other and more cost effective ways to minimize access costs, and it does not want to chill their development or the establishment of contractual arrangements. Many states have been opposed to collocation, but continue to debate the issue.
Rights to Particular BSEs

The ONA plans indicate that only about 40% of the requested BSE requests will be met in the near future. Many requests will never be satisfied. Still others may have never been made, because ESPs expected them to be denied, or they did not wish to tip off competitors -- including the RHCs themselves -- to ESP business plans.

RHCs, according to their filings, may reject requested BSEs because they are technically infeasible, impractical to unbundle or to bill; uneconomical to provide; requiring excessive customization; or out of bounds under the MFJ. Some RHCs plans consider as a potential factor for rejection a negative revenue or technical impact of a BSE on their already existing or potential features and services. Several RHCs, having recognized the business opportunities of some BSEs, find a requested BSE feasible while others do not, or not yet. All of these road-blocks to a BSE require regulatory attention if ONA is to provide access as of right.

It is important to recognize just how complicated these questions are. How finely unbundled should BSEs be? How fast should they be deployed? Who should pay for their development? How standardized should they be across the country and across customers? How customized can they be, and if so, how should the
costs be distributed? Can BSEs be resold? What should the extent of facility unbundling be, when at the same time technological forces strengthen the importance of integration, such as in ISDN and integrated broadband networks? What about interconnection to telcos' software programs, data bases, storage capacity, signalling channels, network management functions, billing arrangements, technical specifications, or customer information?

Policy Coordination and Dispute Resolution

Unavoidably, friction will develop in the process of recognizing, providing, and pricing BSEs. States must be involved in the process of BSE definitions, because many problems deal with services which they approve and tariff. A key element to ONA is therefore a system of dispute resolution. Otherwise, courts, commissions, lawyers and expert witnesses will be extremely busy. It should be in the interests of all parties to create an effective, fast-moving, broad-based, and independent mechanism of coordination with undisputed legitimacy. Such a mechanism should include regional sub-groups. A BSE essential to the Manhattan financial community may make no sense for Wyoming. On the other hand, e.g., remote meter-reading by utilities may be more important in a rural environment than in a suburban one. To establish uniformity would hence burden those states where demand is low, or retard others where it is high. A compromise may suit
neither. There is room for regional bodies to support the national one, reflecting the diversity of regions. On the other hand, some common principles can also be in the interest of the states, since their policy goals could otherwise be undermined by competition among themselves -- a "race to the bottom" -- to attract large users.

To some orderly minds any variation from uniformity is heresy. But total uniformity sounds better on paper than in reality. Uniformity has its trade-offs in terms of flexibility and choice. A uniform system, like a convoy, moves at the speed of its slowest or most obstructionist participants. Without belittling the value of uniformity, one should also recognize that there can also be value in some inter-RHC rivalry, since diversity can give an impetus to innovation or efficiency, while economic rationality can lead in a competitive system to some convergence and coordination even in the absence of a regulatory requirement.

Also, uniformity should not be equated with preemption by the FCC. Agreements among the states or between the state and federal levels can achieve the same result. Nor is preemption the less time-consuming procedure, since it could lead to endless and divisive jurisdictional disputes that would spill into other areas. Preemption should only be resorted to after a solid evidentiary record establishes clearly that serious nationwide
harm is unavoidable otherwise.

States do not favor the Joint Board arrangement, because it leaves the FCC in the driver's seat. Given their view that local exchange issues are part of their traditional jurisdiction under the 1934 Act, they insist on parity at the least. A coordinating mechanism could have a form such as in the following dual mechanism:

(a) **an inter-governmental ONA forum** of FCC and the states, which would be charged with coordinating the various jurisdictional policy interests. It could, for example, establish a hierarchy of uniformity, by defining certain basic functions whose national uniformity is deemed essential, and establishing others where regional or local uniformity is desirable as possible. State regulators may wish to constitute themselves into regional forums, again with FCC representation.

(b) A **private sector ONA forum** which would include a balanced representation, including LECs, ESPs, equipment manufacturers, as well as telecommunications users, both large and residential. The T-1 Committee is one model. This body would be responsible, as the first instance, for technical coordination, standards, BSE definitions, and dispute resolution. It would operate in a flexible and informal fashion rather than be bound by traditional regulatory process. Agreements would be reviewed by the inter-governmental ONA forum and certified to the FCC and the States for their adoption, if the respective
regulatory bodies so choose. In those cases where the private-sector ONA forum cannot reach agreement within a specified and fairly short period, mandatory arbitration would govern. On issues of great importance the inter-governmental ONA forum may choose to make a determination instead of an arbitrator.

Pricing

The RHCs seem to accept the prospect of state regulation of ONA pricing. US West advocates state tariffing of virtually all BSEs. On the other hand, most ESPs maintain that they want nationally uniform rules and rates, service definitions, interfaces, installation, even administrative procedures -- at least for "standard" BSEs -- and such uniformity requires FCC pre-emption. This is an understandable interest on the part of ESPs, many of whom are fledgling firms which desire compatibility and portability around the country. The need for national uniformity in pricing of BSEs and BSAs is not as compelling as, e.g., for basic protocol standardization, as long as pricing is not used to manipulate the competitive environment. It makes no sense to have uniform prices or pricing rules across the country without regard to local costs, conditions of demand, alternative offerings, technological state of the network, nature of demand, demographic and economic characteristics, etc.

No doubt, the desire for national uniformity will lead to
calls for a Federal preemption of conflicting state pricing regulation. But such pre-emption will not work, because it cannot be limited to ONA. Federal preemption would establish prices for BSEs or BSAs that are, as likely as not, different from those of comparable services presently tariffed by the states for intrastate use. This creates the potential for arbitrage and conflict. One can therefore have uniformity only if one preempts state tariffing of most services, and not just of BSEs, i.e., if state rate regulation is largely cut off. To do so would be an unprecedented challenge to federalism in telecommunications regulation, and this would be unwise in almost any respect. Furthermore, because price determines the quantity of demand, taking pricing out of states' hands also denies them an essential tool for another of their traditional goals, that of assuring universal service. Instead, the FCC and the states should agree on a framework of broad guidelines that prevent confusion and incompatibility.

Thus, state regulators will soon have to deal with the nuts and bolts of BSE charges. One basic question will involve the principles for pricing BSEs. Few would disagree that the costs of new service should be borne by those who cause them. But this is a cliche without much analytical content. Besides, what are the costs of implementing ONA, and what are the revenues it will generate? It would be helpful to have an estimate of how much all this is going to cost, in particular net costs, i.e., those
over and beyond costs that would be incurred anyway, e.g., for the introduction of CCS-7. Nynex, in a subsequent filing to the New York PSC, estimated ONA-related revenues to exceed $1 bil in 1994. (It is not clear, however, if these are "new" revenues, or whether they include previously bundled services.)

At this point, the plans' discussions of pricing are quite diverse, reflecting variations in monopoly power, regulatory regimes and business strategies.

* Some RHCs state that their BSEs will be cost-based. (Ameritech, US West).

* Others talk about market pricing, i.e. they will try to charge what the market will bear. (Nynex, Bell South, Bell Atlantic).

* A related approach are negotiated rates which permit price differentiation among users. (SW Bell, US West)

* Several plans imply that some ONA services could be a source of subsidy for the rest of the network. (SW Bell & Bell South).

* Others could be ready to consider subsidizing BSEs, at least in the beginning, in order to promote new services. (PAC Tel)

* Some seem to prefer a "parity pricing" in which they cannot charge their own ESPs less than their competitors, but where these charges are above cost.

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* No carrier advocates a classic rate-of-return-based pricing, although some will follow pricing for similar services which may be based on it.

From the state perspective, tracking and recovery of ONA implementation and ongoing costs will be difficult. The integrated structure of regulated BOCs and BOC-ESPs, together with the complexities of joint and common cost allocation make it difficult to detect cross-subsidies or unfair competition. The FCC views the Part X accounting rules as a major non-structural safeguard against cross-subsidization. Many states are currently involved in establishing such rules for their own jurisdictions. The provision of adequate data is essential for any regulatory regime in ONA. It is also necessary to separate the interstate and the intrastate elements of ONA-type services.

A large number of questions need to be resolved. Who should bear the risk of developing and introducing BSEs (and BSAs, if approved)? States do not wish to see ratepayers become involuntary venture capitalists. Must each BSE/BSA be priced according to the same principle, or depending on market conditions? Some BSEs/BSAs may face competitive offerings, while others do not. In a dynamic environment, there are no easy answers, and the implementation requires the messy task of separating cost and revenues of BSEs tariffed under different principles, and of regulated BSEs from various unregulated
functions such as billing. Must each BSE/BSA's revenue cover its own cost, or only in the aggregate? And if not, could there be cross-subsidization that would distort competition? Conversely, could BSEs be defined so finely as to permit undue price discrimination between users? How much flexibility should there be in the rates? Can users be charged according to negotiated rates, making price discrimination possible? Or are such negotiated rates helpful in ensuring that needs for customized BSEs are met or that later entrants are not overcharged? Similarly, should it be possible for an ESP to obtain exclusivity to a BSE in return for its special development? Which cost definition is used -- average, incremental, fully distributed, etc.? A large number of BSE requests were for voice analog services such a voice-mail. It seems that segments of sophisticated data service usage has already left the public network. Should there be pricing incentives to bring them back?

Another set of questions relates to what happens to existing services. Are they to be unbundled into oblivion? Who then is to pay for such "stranded" services? Some, presumably, will disappear. Others will be repriced, or their BSE/BSA aggregate counterpart will lead to a different price than before. Could this affect some users negatively? The answer is yes. It is easy to proclaim a principle that no interconnector should be worse off than before, but this is a promise hard to deliver. In a wide-ranging restructuring of rates such as ONA may cause,
there are not enough degrees of freedom to keep everybody ahead while avoiding all inconsistencies.

A Level Playing Quagmire?

ONA is designed to equalize competitive conditions for the broad array of interconnectors such as ESPs, and to permit the BOCs to enter activities from which they had been either precluded or subjected to complicated forms of organizational structure. Some of the advantages of a "home field" have been addressed by the FCC and the RHC plans, including unequal access to technical standards, provisioning biases, etc. But other questions remain. As discussed, there is a controversy over physical access. The RHCs, in response to FCC guidelines, are willing to charge their own unregulated ESP activities the same as they would unaffiliated ESPs. This sounds good. But to make this parity meaningful they would have to maintain it, even where the BOC-ESP is collocated while its competitors are not. In some circumstances, therefore, the RHCs could end up paying themselves more than cost would require, in order not to undercut the non-affiliated ESPs. Thus, there are situations of a policy trade-off between competitive parity and economic efficiency. States are affected by the trade-off, because BOC revenues are.

Another bump in the level playing field is the extent of access by ESPs to network functions that the BOC-ESP may utilize.
Mentioned earlier were telco software programs, data bases, storage capacity, signalling channels, network management functions, billing arrangements, technical specifications, or customer information. On the one hand, many of these functions are needed for a full interconnection and a level playing field. On the other hand, there must be some limits to a "creeping socialization" of privately owned and managed carriers by extending the common carrier principle into its management functions. Furthermore, a full disclosure of technical information may have its cost in terms of innovation, since it may reduce the incentive to develop proprietary technology.

Billing functions and Customer Proprietary Network Information (CPNI) is particularly important, given its potential marketing value, and BOCs have superior access to it under the FCC CI-3 decision. If CPNI is available to RHC product developers and marketing managers, they will be able to sift through computerized records in order to develop or market new products. Other ESPs, however, would have access to CPNI only with approval of a customer. To level the playing field either means severely intruding into telephone customers' privacy, or precluding a BOC from otherwise reasonably available information. Partly to deal with the competitive problem, Judge Greene, imposed in March 1988 restraints on the use of CPNI information. Adding to the injury, the BOCs are requiring ESPs to provide supporting marketing information in order to assess demand for a
new BSE. Thus, the ESPs could alert the RHCs to potential market opportunities. (To their credit, some RHCs have identified this possible conflict and have established BSE reviewers separate from ESP-BOC product managers.) And if BOCs undertake their own studies of the feasibility of BSEs, rate payers as well as non-affiliated ESPs must be protected, as in Part X rules, from bearing the cost of developing information that may benefit the BOC-ESPs.

Related problems deal with timing. A BOC should not be able to hold off approval and deployment of a BSE until its own affiliated ESP is ready to enter that particular service. BSEs also should not be defined and priced in such a way as to make price-discrimination possible. Nor should departure from national BSE definitions, or the sequencing of introduction, be aimed to give BOC affiliated ESPs a regional advantage over national services.

The BOCs' long-range interest is in a smooth ONA system. It would be a historic mistake for them to stall ESPs. AT&T dragged its feet on OCC interconnection, and eventually the political-legal process became frustrated enough to seek the meat-cleaver approach of divestiture. If the BOCs were to use interconnection as a strategic tool to repress competition, they may be threatened, in a decade or two, by a similar fate, and their exchange operations may become organizationally separated from
their transmission functions.

Other Consumer Protection and Universal Service Issues

Most states will focus on the likely effects of ONA on the residential users. These customers, many of who have little use for ONA services, could end up paying more, because unbundling may reduce revenue that has previously subsidized residential service, or because it could permit bypass and other revenue diversions. On the other hand, the volume of traffic and of revenues could pick up. At present, a residential phone is used only about 25 minutes/day. An increase of usage by only 5 minutes/day could thus, increase the revenue-flow from usage-sensitive charges by 20 percent. ONA could make it possible to provide small users with services which in the past may have only been available on large users' private networks. New and useful services are likely to emerge, and the cost of central office switching could go down as a result of competitive incentives. Positive effects, however, are likely to take some time while costs are more immediate. In the meantime, it would be hard to defend rate increases to the general ratepayers that are due to a restructuring of interconnection if their service is not directly and appreciably improved.

Another consumer issue involves BOC billing and collection for an interconnector. Should users' telephone service be
disconnected if they do not pay their ESP usage bills? There is little justification for holding hostage local service for non-payment to ESPs and other third-parties, especially where selective blocking technology could soon provide a technical fix to the problem of non-payers. Billing issues have traditionally been a state concern and responsibility.

An easily agreed upon policy goal is that ONA should not interfere with the provision of universal service. ONA is primarily an aid for access to the network by software or hardware networks and by voice services; it does not directly affect the access of the individual subscriber to the public network. However, the ability to be reached is as much part of universal service as the ability to originate a call. Thus, if ONA results in the emergence of a system of regionally specialized protocols of exchange carriers that preclude access to or from subscribers in other areas, then universal service is affected. This, of course, is an argument for some basic national standards. But it is also an argument for a relatively even geographical spread of ONA-capable exchanges. Clearly, ONA will be implemented first and foremost in major business centers. If introduction to rural or depressed areas is slow, a further long-range differentiation in service spectrum from one region to another would become unavoidable. For many states this would not be acceptable on public policy grounds. They would want to have a say in any arrangement that creates a service gap that is not
temporary. Other states may wish to engage in an industrial policy in which they differentiate themselves in the capabilities of telecommunications services. A related issue is the ability of small independent telcos to provide ONA interconnection. Should they be required to implement ONA, or to mirror the scheme adopted for the BOCs? If the smaller independents are required to offer ONA interconnection, they may have to farm out their exchange services to larger independents or to the BOCs, and this reliance on sub-contractors would ultimately reduce their role and their net revenues. To deal with these questions, states may opt for a subsidy mechanism. Again, there is room for local choice.

**Outlook**

Open Network Architecture is a sensible concept; moreover, ONA-type interconnection is unavoidable in the long-term, and within the historical trend of opening the network to new entrants. In the process, the traditional centralized and hierarchical system becomes transformed into a network of networks. Interconnection of hardware and software networks becomes a central issue, and control over interconnection a key element of regulatory supervision. To attempt squeezing the states out of this area is hence to deny them participation in the control of future telecommunications structure, and they will not take to it kindly. On the other hand, for states to fight
the principle of open interconnection is to be tilting at windmills.

ONA interconnection is a much more complicated affair than the earlier opening up of access for CPE or for long-distance carriers. There is much work to be done in a process that will not stand still. Hence, it would be a costly mistake for public policymakers to leave the substantive issues and retire to the jurisdictional battlegrounds. Nor would it be sensible to try to resolve the myriad issues in advance.

The FCC has given contradictory signals about its peaceful intentions regarding jurisdiction on ONA issues. It has acknowledged intrastate ONA tariffing by states and expressly declined to pre-empt state jurisdiction over rates and other terms and conditions of particular CEI offerings and BSEs. (FCC Reconsideration, par. 133.)

However, the Computer Inquiry III decision moved into redefinitions of exchange services and their pricing, thereby stepping into state territory. Several states have challenged the FCC in court. The FCC also approved the CEI plans of PacTel and Bell Atlantic which included pricing of new local services, before they were approved by the respective states.

The question which hopefully will be addressed by regulators
on both levels is "what do we want in terms of substantive policy?" States should be involved in mapping out the future and making it serve their regulatory concerns. This is what we are attempting to do in New York in our proceeding on ONA-interconnection issues.

The complex and interdependent web of ONA issues cannot be resolved by independent actions by federal and state jurisdictions, and certainly not by preemption. States may also have to coordinate their policies among themselves to avoid inconsistent treatment of RHCs operating in their jurisdictions, and to avoid undesirable increases in "tariff shopping." What is needed is a collaborative effort, based on agreed upon institutions, that can adequately reflect the amalgam of state and federal interest and come up with a consistent set of ONA policies.

The logic that leads to ONA is also the logic of federalism. If diversity is the FCC's goal -- of services, competitors, and options -- it must also view diversity of policy approaches as a source of strength rather than of weakness. And if non-interference by government underlies deregulation, the FCC should be very careful in denying leeway to others. To be result-oriented in seeking preemption is extremely short-sighted. Presidents, Commissioners, and policy preferences come and go, but the Federal system with its balances must continue.