

Impact of Divestiture at AT&T

Inside story of role licensing played as divestiture impact was felt at AT&T

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AT&T, early in its second century, faces markets and business opportunities dramatically different from those it faced merely a decade ago. It has always been heavily dependent on technology. In its first century, it utilized its research and development resource — Bell Laboratories and its manufacturing resource, then known as Western Electric, to achieve the world's finest telephone system.

These resources, and the intellectual property assets they produce, continue to be at the center of AT&T's plans as it restructures its business to address new markets and opportunities. However, these assets will be deployed in ways clearly different from those required to achieve the objectives of an integrated Bell System. Licensing, as an important part of this deployment process, has had to change accordingly.

In this paper, I will review the history of licensing at AT&T with particular reference to divestiture. Perhaps this review will be interesting in and of itself. But its broader purpose is to reinforce the view that licensing decisions must be taken as part of the business planning and implementation process.

I will not recount even a selective number of specific licensing activities. Instead, I will report on the maturing or evolution of the thinking at AT&T as the mission and markets of the company were reshaped by divestiture and other external events.

THE EARLY YEARS

During its formative years, AT&T's licensing practices were the same as other entrepreneurial ventures. The company owned a basic patent which it used to create a market. Instead of licensing, it litigated — as the entire Volume 126 of the Supreme Court reports bears testament. As an early officer of the company observed, "this (was) the 'era of the inventor' when it was vital to the future of the company to control the basic patents in the telephone art."¹ This policy permitted the company to achieve a national presence by the end of the 19th century.

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Early in the 20th century, under the visionary leadership of President Theodore Vail, a policy of universal service was adopted. Simply stated, the company's objective was to provide low-cost, high-quality end-to-end service throughout the United States — an objective that took nearly 75 years to achieve.

This policy of universal service provided a simple litmus test for all decision-making and very directly influenced the parameters of licensing policy and practice. Licensing was designed to give AT&T's technology resources — Bell Labs and Western Electric — design freedom and to disseminate AT&T technology to others. Its goal was to ensure availability of the broadest possible range of high quality, low cost, equipment for the telephone service providers.

AT&T therefore deployed and used its technology not to enhance the profitability of its manufacturer but to support the capability of its service providers — the local and long distance telephone companies. In many ways, "universal service" was the bottom line — and licensing was in direct support.

This licensing policy was publicly enunciated in the late 1940s as follows: "It is the Bell System's policy to make available upon reasonable terms to all who desire them nonexclusive licenses under its patents for any use."²

THE 1956 CONSENT DECREE

This policy became a legal requirement in 1956 as part of a Consent Decree that terminated a 1949 government antitrust suit aimed at the divestiture of Western Electric.³ The Decree required royalties to be nondiscriminatory but permitted them to be adjusted — or even eliminated — in bilateral agreements. If based on "a bona fide estimate of the values of the licenses" exchanged, they would not be deemed to discriminate.⁴

There were no Tunney Act proceedings at that time and, although the District Court of New Jersey that entered the Decree retained jurisdiction, there were very few proceedings before the court during the 26-year life of this requirement. Thus, it would be the rare trivia buff who could recall the 1956 judge's name — unlike the familiar name of the judge who presided over the divestiture proceedings. (Judge Thomas F. Meaney entered the 1956 Decree.)

In 1956, the focus both within and outside of AT&T was on the vertical integration of AT&T. Some critics of that decree — Congressman Celler in particular — denounced the permission given AT&T to retain the Western Electric manufacturing unit. Few people paid much attention at that time to the business and patent limitations in that settlement. However, these were to become

major ingredients in the calculus of the divestiture decision nearly 25 years later.

The business limitation restricted AT&T, except in its business with the U.S. government, to regulated common carrier communications services.⁵ This did not seem too oppressive since the company had sold its considerable overseas assets to IT&T in the 1920s for the purpose of focusing attention on the attainment of universal service in the United States. Domestically, it came into compliance by selling its interest in two relatively small businesses, one of which exploited basic technology from Bell Labs in sound motion pictures and high-fidelity sound.

The patent restriction, as noted earlier, largely codified pre-existing licensing policy. It was noticed at the time primarily because it carried with it an obligation to license all pre-decree patents, including the basic transistor patents, royalty-free. This, however, merely accented the values to be given to futures — i.e. those inventions not yet made — in subsequent bilateral negotiations.

THE CHANGING OF CIRCUMSTANCES

Two forces combined to alter the impact on AT&T of the 1956 Decree. The first of these was the unrelenting advance of technology. Even before 1956, work was underway to apply the pioneering computer work of George Stibitz at Bell Labs in the 1930s and 40s to central office switching. Because of the decree business restriction, this promising new technology could be applied by AT&T only in ways that would result in common carrier-regulated offerings. This precluded not only such obvious products as stand-alone computers but also computing services that might efficiently be offered as adjuncts to telephone services.

And it was not just computing technology — although that was undoubtedly the major problem area. In the 1920s, when company researchers solved the problem of synchronizing sound with motion pictures, a new business was formed to exploit the technology — and make “sound by Western Electric” a well-known legend for the moviegoers of the 1930s and 40s. The pioneering work in high-fidelity recording and reproducing at Bell Labs during the same period was also exploited by this business.

Later innovations from Bell Labs that fostered major businesses or industries included the transistor, the laser, satellite communications and cellular radio. AT&T, however, was forbidden by the decree from applying these technologies to anything but common-carrier communications services.⁶ (When the semiconductor industry emerged as a growth industry in the 1960s, a high AT&T executive is reported as wondering, in an internal planning meeting, whether perhaps they should have kept the transistor instead of the telephone in accepting the 1956 decree.)

The other force that changed at least AT&T's view of the 1956 decree was the evolution of international markets. Not only were markets developing in other countries but the United States was itself becoming a prime international market. Although the decree did not expressly forbid international sales of common carrier telephone equipment, it clearly had an inhibiting

effect — at least in the early years.

Critical Event

For AT&T, the critical event was the Carterphone decision by the FCC in the late 1960s. This decision permitted customers to purchase and own their telephone — and not be limited to one provided by the telephone company. It was the starting point for a major change in U.S. telecommunications policy that had ramifications far beyond the subject at hand.

But in converting from a policy centered on essentially a single-service provider with end-to-end service to one in which consumers were free to select first their terminal equipment and eventually their long distance service provider, the FCC greatly enlarged the roster of telecommunications equipment and service competitors in the U.S. Since many of these competitors were well established foreign firms, AT&T had to reconsider its earlier decision to forego foreign markets.

There were, of course, other motivations. For example, the cost of R&D was escalating and additional markets to recover this cost appeared more than merely desirable.

Throughout the period of the 1956 decree, AT&T's intellectual property strategy was as much a creation of that decree as it was one of conscious business strategy. This, of course, was most pronounced in patent licensing but was also evident in patent portfolio management. Licensing was mandatory and patents were obtained largely as bargaining chips to obtain rights from others. By and large, design freedom was retained through bilateral licenses. Also, a modest flow of royalties was added to the company's revenues. However, this focus on legal requirements had the undesirable effect of tending to isolate the people performing these functions from the business people. Interaction of licensing people with antitrust lawyer decree experts was more likely than with strategic planners.

Turmoil

The period of the late 70s was one of turmoil and turbulence. Advances in semiconductor technology, software and fiber optics were eroding market distinctions in a way that was undermining regulatory barriers imposed on AT&T by the FCC almost as soon as they could be ordered. In addition, the seriousness of the 1956 business restrictions was becoming evident within AT&T as business opportunities stemming from technology created for common carrier purposes had to be foregone.⁷

During this period, the FCC in a series of decisions culminating in the Computer Inquiry II order in 1980,⁸ attempted to cope with evolving technology, the 1956 decree and cross-subsidy issues. It declared that a “bright-line” existed between certain common carrier activities that continued to require traditional regulatory intervention and other activities that had become sufficiently competitive that only a global type of regulatory surveillance was justified. AT&T could participate in both if it performed these competitive activities in separate subsidiaries on which were imposed some transactional arms-length type of restrictions.⁹

The resulting AT&T reorganization to comply with

this order not only added considerable costs to the business but also created confusion for customers. Only last year were these restrictions lifted to the extent that AT&T could reintegrate its sales and marketing and once again approach customers with a single point of contact.

The technology explosion that was complicating life for AT&T from both a decree and a regulatory point of view was to a considerable extent driven by AT&T. This somewhat ironical development would perhaps have occurred even without Bell Labs. But, throughout this period of turmoil, that institution made many major contributions to the key technologies mentioned. These were widely available to others under AT&T's mandated licensing policies, thereby hastening the day when incremental regulatory adjustments would be found inadequate.

Also, during this period, the strength of the overseas threat to U.S. business — including AT&T — was just beginning to be understood. The fact that many sales losses to such competition were to products based on technology created and licensed by us was not lost on AT&T management.

And, of course, there was the tremendous cost in money and time — particularly of top business executives — of the many antitrust suits that were nucleated by the rapidly changing FCC policies. One of these was the government suit brought in 1974.

Paradox

During the decade from the filing of that suit to divestiture, we had the paradox of a federal district court making national telecommunications policy and the Congress attempting to legislate the end of a law suit. The FCC meanwhile was attempting both.

The issues were not minor ones: national telecommunications policy, antitrust policy, national security and trade policy were all intertwined. Meanwhile, AT&T management had a major obligation to its shareowners. The decision to accept the prayer for relief demanded by the DOJ stemmed directly from this obligation.

In their interests, it was necessary to terminate what would clearly be an extended period of uncertainty were the government suit litigated to the bitter end. Also, it presented an opportunity to end both the business and patent restrictions of the 1956 decree, thus permitting the company to pursue its technology and utilize its patents as other competitive companies do.

THE DECREE IS MODIFIED

AT&T announced its historic decision on January 8, 1982. The resulting shock waves continue to reverberate both in the Congress and the FCC and to bring business to the court which entered the Modified Final Judgment (MFJ).¹⁰ Internally, the effects were cataclysmic. We had to separate over \$150 billion in assets and some one million employees into two piles. Then we had to separate the larger of those piles into a number — eventually determined to be 7 — of smaller piles. All of this, of course, was done while continuing to maintain high levels of service. (We also had to explain to customers why three-stop shopping for telephone service was better than the old one-stop way.)

Intellectual property rights also had to be allocated at divestiture, both patents and technical information. The divested BOCs were given rights to AT&T patents issued prior to January 1, 1989, together with the right to sublicense their suppliers for sales to them, provided the sublicense does not prejudice AT&T's existing licenses. Rights to technical information were spelled out in considerable detail, including rights to certain work in progress. Trademarks were also allocated. Most attention focused on the well-known marks Bell and the bell symbol, which were given to the divested companies, except for international business. Although many issues have arisen, most have been resolved by negotiation.

At the same time, the new and slimmer AT&T had to redefine its mission, the markets it would address and how it would conduct its business in an environment lacking a 1956 decree. As noted earlier, the MFJ while significant, was not the only "externality" affecting AT&T. Therefore, many of the changed business practices were driven just as strongly by technology evolution, FCC policy and the "globalization" of markets as they were by the MFJ.

NEW CHALLENGES

What were some of these changes?

First, and foremost, AT&T announced that henceforth its business was information movement and management.

This represented a determination to create broader market opportunities from the technology developed originally for the more traditional voice, data and video services. AT&T intends to be a leading factor in the expansion of these services and their integration into newly emerging opportunities for the networking of business office automation products, including computers. Central to this mission is a customer focus that carries with it an intention to create integrated turnkey systems providing services responsive to customer needs and not to be merely a provider of "boxes," i.e. stand-alone functional products.

AT&T has also renewed its commitment to be an international company. In implementing this commitment, AT&T faces two challenges unique to its business.

First, the customers of most of its network systems products, such as central office switching machines and digital transmission systems, are the traditional telephone companies. In the United States, these are primarily the divested Bell Operating Companies or BOC's — once AT&T affiliates and now AT&T customers. Overseas, however, service is usually provided by a governmental administration known in Europe as the PTTs. As governmental entities, they establish their own purchase requirements, one of which is usually to buy only from local vendors. Also, they often allocate their market in advance with only limited opportunity to break into strongly entrenched patterns of purchasing.

The other factor is the pervasive importance of standards. For telecommunication products to play together, careful attention must be given to many things in addition to simple electrical compatibilities. Despite international standards bodies, these have tended to develop in different directions as anyone who has used telephones overseas can observe. In the newer digital world

most products include processors so that networking requires an even higher level of standards sophistication for interconnectability.

Therefore, to hold down the incremental cost of international products, one must be very active and successful in the cognizant standards bodies where technology is often secondary to political considerations.

AT&T also faces a third challenge which is unique neither to its international business nor to its industry. For a variety of reasons, it is becoming increasingly important to form strategic partnerships, or alliances, with other firms. One reason comes from the increased desire of major customers to obtain turnkey solutions to their business problems. In the IM&M market, it will be the rare firm which can internally address the broad needs of many such customers. In addition, AT&T as a fairly new entrant in the international market has found it useful to blend its technological strengths with the marketing and distribution expertise of long-time players in that arena. Also, there are often *de jure* or at least *de facto* reasons for forming alliances with local firms if one is to be successful or, in some cases, even to be present.

LICENSING IN SUPPORT OF THE NEW AT&T

I have given this extended, although superficial treatment, of the markets that AT&T now faces to show first of all that they are markedly different from the comfortable days of Mother Bell. Also, to show that in many respects they pose problems and challenges similar to those many of you face. However, in the case of AT&T, these market and mission changes were superimposed on one of the biggest corporate reorganizations in history. Therefore, revisions to licensing policies and practices were developed as part of a much bigger process, with little useful precedent as guidance. How has all of this change affected licensing?

First, we do not think of licensing as a stand-alone function or one that can or should be directed by the legal or licensing department. Instead, it has become but one part of an intellectual property strategy that in turn is part of strategic planning and implementation.

Perhaps this is merely another way of stating the objective of this conference, namely, that licensing must contribute to the company's bottom line. But, I prefer to state it in terms of contributing to business objectives lest one assume that licensing's role — post MFJ — is merely to pluck technology from the corporate vine and discover a licensee willing to pay a royalty for its use.

Strategic planning begins with a determination of competitive strengths and weaknesses. What are the key technologies which will yield strategic advantage over competitors? The intellectual property community — patent lawyers as well as licensing people — are ideally situated to contribute to this process.

How can this technology be deployed for maximum advantage? In the new global markets of the type I have described, this is a different issue. It requires an understanding of the intellectual property laws — as practiced as well as written — in many countries. It requires an ability to create relationships with new entities which, while being legally rigorous, also encourage harmonious relations. It also requires a clear focus for the patent attorneys who must custom-tailor their

claim drafting efforts in support of pre-determined strategic thrusts country by country.

At AT&T, we have created new internal relationships both within the intellectual property community and with the other functional units responsible for designing and driving the company's business plans. Patent attorneys work closely with business planners in the various product and service development groups to determine where to focus their efforts and how to tailor claims. Patent statistics *per se* are no longer considered very important — despite the affection people in public relations have for them. The important question now is: Which claim or which patents are effective in supporting the business plans?

Licensing policy has also been restated to bring it into congruence with the new competitive world of AT&T. In broad terms, AT&T will license its patents when it is in the interest of the business to do so. This would seem less than newsworthy if you forget the mandatory licensing policy of the 1956 decree as well as the voluntary open policy that preceded it. However, the difference that this new policy represents, in the short run at least, will be much greater in the internal implementation than in external manifestation.

Impact

When it became known in 1982 that the 1956 patent licensing restriction would be terminated, cries of alarm were sounded by the Massachusetts congressional delegation and others. Unless compulsory licensing were continued, they said, AT&T would shut down many of the firms on Route 128 by terminating their access to Bell Labs technology.

This, of course, was preposterous. AT&T's licensing mode for many years was to grant licenses for the entire term of all licensed patents and not only on issued patents but, as mentioned earlier, also on "futures." Futures were defined as patents based on inventions to be made within a five-year period — called "the net" — commencing with the effective date of the agreement. Thus, an agreement dated January 1, 1980, carried with it rights extending out 20-25 years since inventions made near the end of the net would not result in patents for another several years. This bow-wave of rights made it impossible for AT&T to change the effect of its licensing practices in any dramatic way.

Also, AT&T has always been very conscious of the need to acquire rights from others — even during its early history when Bell Labs made most of the major contributions to telecommunications. We continue to be mindful that there are many other effective contributors to the technology we need. Thus, AT&T is not likely to precipitously slam the door of its previous open policy. AT&T is therefore continuing to seek as well as to grant patent licenses. The decision in each case, however, including a decision on rights under futures is based on a business assessment rather than a decree interpretation. Since AT&T is being managed as a single enterprise, these business decisions take an enterprise point of view.

The role of futures is to maintain access to the technology AT&T needs for its business. The value of such futures depends, as in the past, on an assessment of innovative potential 'vis a vis' AT&T.

Technology licenses are similarly driven by business considerations. Conventional licenses — with all of the conventional challenges and difficulties — transfer defined packages of technology to other firms. Many of these are foreign firms where local manufacture is necessary for local market access. Software agreements, such as those which have deployed the AT&T UNIX® operating system around the world, also continue to be important.

The most difficult challenges come from strategic partnering. In some cases, firms partner for some purposes and compete for others. Also, partnering may range from a straightforward distributor arrangement to one involving shared R&D and manufacturing responsibilities. Issues design tools and training are only two of the difficult issues which must be addressed and resolved in the context of a complicated technology transfer which must deal with the allocation of rights during the term of the agreement as well as the disposition of such rights upon termination. Trademark licensing — a relatively new dimension to AT&T licensing — is also a frequent byproduct of such partnering.

Also, governments are tending to make their presence known and felt during the negotiation of such agreements. Our recent experience in France is but one publicly visible example. And government interest is not limited solely to the market allocation issues. It often extends to the nature of the technology exchange itself. For example, how soon will you commit to bring in-country your latest 2-micron semiconductor technology to supplant the initial 3-micron design rule technology in the deal?

Diplomacy Adjunct

No doubt, many of the firms you represent are facing similar international issues. Some governments are demanding, as the price for market entry, not merely local manufacturing, but an agreed-to level of exports. In addition, they are requiring local R&D together with the knowledge and tools adequate to make that function self-sufficient. In such cases, diplomacy has become a necessary adjunct to licensing both in negotiations and in the drafting of agreements.

Many countries, particularly developing countries, also use their intellectual property law to force you to transfer your technology to the country at large by limiting the term of trade secret agreements and by withholding copyright protection for computer software.

From 1925 until just over five years ago, AT&T primarily licensed only patents in foreign countries (other than Canada). Now, however, we have major partners in Europe — Philips in Holland, Olivetti in Italy and a new venture in Spain. We also have a significant partner in Korea, Gold Star, one in Taiwan and a fairly new one with Ricoh in Japan. In addition, we have somewhat smaller ones elsewhere, including Ireland, Singapore and Thailand. All of these involve technology transfer. The nature of AT&T's relation with its partners varies considerably — majority ownership, some minority ownership, and one is 50/50. However, in most cases, the technology transfer agreement is negotiated as an arm's-length transaction.

AT&T also has an active worldwide computer soft-

ware licensing program. Its flagship is the AT&T UNIX software but we have licensed other software, even in Japan where the U.S. seems to have a lead.

As in the past, AT&T manages its licensing with business people as well as lawyers. This is true of patents as well as technology and computer software. Depending on the negotiations, the business people may come from a group of corporate licensing specialists or from the particular business group directly involved.

But, as important as the negotiating and contract drafting are, it is the up-front work that will produce the long-term pay-off — which technology do you patent and in which countries, how will you deploy your technology for maximum leverage, how do you integrate your intellectual property rights and licensing into a corporate business plan.

AT&T is still in a formative stage in dealing with such issues. We have not discovered any magical organizational relationship to achieve the integration I described nor do I believe that one exists. Instead, we are creating — and continually modifying — networks of people who seem to be the most appropriate to interact usefully on these issues. I believe we have made a good beginning but know that much remains to be done.

CONCLUSION

Today, many members of the public attribute their concerns with telephone service if not to Judge Greene directly, then to the divestiture process. It is similarly tempting to attribute the changes in licensing at AT&T to divestiture. However, as we dig under either of these issues, we find that there were many other forces at work not within the jurisdiction of Judge Greene's court. The major ones, as recalled above, were FCC policy, technology change, and the emergence of global competition.

Of course, the divestiture process played an important role — by terminating both the AT&T business restrictions as well as the compulsory licensing obligation. Without minimizing the potential long-term importance of either of these, it is fact in 1986 that the bulk of AT&T's revenues continue to come from businesses which likely would have survived a challenge under the 1956 decree. Also, AT&T's pattern of patent licensing has thus far changed very little, although the internal thought processes are different.

But it is also fact that AT&T's business and mission have changed. Even though major segments of the customer base remain the same, the evolution of a business addressed to the U.S. telecommunications market to one directed to international information movement and management has required profound changes in the way the business is managed.

Throughout this evolution, it has been recognized that the creation and deployment of technology will be critical to success. This has required new thinking in the way we manage and license our intellectual property.

Licensing plays an important role in achieving AT&T's business objectives — not as a profit center — but as an integral part of the overall business process. The challenges are considerable, and articulation of goals is much easier than achievement.

I believe that we are on the right track. Divestiture is behind us, along with the underbrush of the 1956 con-

sent decree. Bell Labs may never invent another transistor, but if it does at least we will be free to make the right choice — or at least have the opportunity to charge a royalty.

NOTES

1. From an interview in 1944 with Dr. Frank B. Jewett, who was the first president of Bell Telephone Laboratories when it was formed in 1925. He was describing the condition of the predecessor Western Electric laboratories as he found them in 1912. See "Invention and Innovation in the Radio Industry," W.R. Maclaurin; The McMillan Company, 1949.

2. "Bell System Patents and Patent Licensing," by Keith McHugh, Bell Telephone Magazine, AT&T, Winter 1948-49.

3. *U.S. v. Western Electric and AT&T*, D.C. N.J., Civil Action 17-49.

4. Section X(c)

5. Although the decree permitted Western Electric to manufacture for sale to others equipment "of a type" sold to the Bell Operating

Companies, the extent of such sales was minor.

6. Although the transistor was invented seven years before the decree, the technology in 1956 was still in its infancy. Also, a corporate decision had been made shortly after the invention to share the technology with others, consistent with the company's focus on universal service and its open door licensing policy.

7. During the 1970s, AT&T commenced the licensing of software — including its UNIX[®] operating system. This was challenged as a decree violation but the Department of Justice agreed with AT&T that such licensing was not a business. It noted that the software licensed was developed for internal purposes, was licensed on an "as is" basis, and contributed very little income.

8. 77 F.C.C. 2d 384 (1980).

9. By maintaining surveillance instead of deregulating, the FCC maintained that AT&T could participate in this new competitive market — specifically in the sale of customer premises equipment — without running afoul of the decree.

10. The judgment being modified was the decree entered in 1956. See 552F. Supp.131,226-234 (D.C. D.C. 1982).