

India: Adopting a Pro-Competitive Policy for Telecommunications

**FOR PRESENTATION TO THE
TELECOMMUNICATIONS ALLIANCE
BOARD OF DIRECTORS**

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M.A. COMMERCIAL DIPLOMACY

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MAY 12, 1999

This paper was researched and written to fulfill the M.A. project requirement for completing the Monterey Institute of International Studies' Master of Arts in Commercial Diplomacy. It was not commissioned by any government or other organization. The views and analysis presented are those of the student alone. For more information about the Commercial Diplomacy program and the M.A. project requirement, please visit www.commercialdiplomacy.org.

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SCENARIO

For the purpose of this project, I assume the fictitious role of Government Affairs Specialist at a fictitious American industry association, the Telecommunications Alliance (TA). After receiving numerous complaints from member companies about their difficulties in gaining access to the Indian telecommunication products and services market, TA tasked me to develop a plan for expediting telecommunication market liberalization in India.

OVERVIEW

On February 15, 1997, World Trade Organization (WTO) successfully concluded the negotiation of a Basic Telecommunications Agreement (BTA). The vast majority of the BTA's 69 signatories made far-reaching commitments that are significantly liberalizing the \$725 billion global market for telecommunication goods and services. WTO member states are generally satisfied that commitments made in the WTO Basic Telecommunication Agreement (BTA) are bringing competition to the global telecommunication industry at a sufficient pace, and therefore, telecommunications will not be a major issue during the upcoming Millennium Round negotiations.

Nonetheless, six countries (including India) tabled just minimal commitments that bind them to observe only regulatory principles of their own creation.

This report demonstrates that:

1. The U.S. government needs to engage in bilateral discussions with India in order to demonstrate that an accelerated pace of liberalization in the telecommunication sector will help spur India's economic development by increasing exports and bringing numerous other benefits to India's economy and people.
2. Although adopting and implementing all the BTA commitments will pose a significant challenge for India, Indian policymakers should build on the commitments they've already made.
3. If India is able to signal its commitment to liberalization and to the adoption of a pro-competitive regulatory environment, it will be in a better position to attract capital flows needed to improve its telecommunication infrastructure. Private investors will be willing to invest in modernizing India's telecommunications infrastructure only if they can count on fair and stable rules of the game.

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Part I

Issue Analysis

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I. INTRODUCTION

India's telecommunications products and services market is potentially worth over \$60 billion. However, because India chose not to accept all of the principles set forth in the Reference Paper of the WTO Basic Telecommunications Agreement (BTA), U.S. telecommunications firms still encounter formidable difficulties in entering the Indian market. Current challenges for U.S. telecommunication product and service providers in India include changing political climates and an uncertain, evolving regulatory environment. In addition, U.S. firms contend with:

1. Discriminatory government procurement policies;
2. India's lack of a transparent regulatory regime;
3. Corruption and bribery;
4. India's lack of compliance with negotiated trade agreements;
5. Non-tariff barriers such as burdensome licensing and approval procedures; and
6. Standards and service-related obstacles.

Indian bureaucrats need to understand that policies should be implemented to facilitate investment in telecommunications and these policies need to be strictly enforced.

This report begins with a background analysis of the current state of telecommunications reform in India. It then identifies and analyzes important commercial and policy arguments in order to demonstrate that the introduction of competition to India's telecommunications sector is vital to the development and health of India's economy. The report also identifies important people and groups that will need to be mobilized in order to ensure compliance with national and international obligations.

II. BACKGROUND: THE WTO AGREEMENT ON BASIC TELECOMMUNICATIONS

Signatories to the WTO Basic Telecommunications Agreement (BTA) include the United States and 68 of its trading partners, which together represent over 90 percent of global telecommunication service revenues. Subject to explicit exceptions listed by signatory countries, the agreement provides U.S. telecommunication carriers access to local, long-distance, and international service markets through all means of network technology (e.g., wireline, cellular, and satellite technology). The agreement also ensures that U.S. investors can acquire or establish telecommunication companies in many countries, and it obligates most U.S. trading partners to maintain or implement new, pro-competitive telecommunication regulations. Parties to the agreement scheduled binding, most-favored-nation commitments with respect to market access, investment, and regulatory principles. Signatories' commitments became operative on February 5, 1998, when supplementary telecommunication schedules were folded into the General Agreement on Trade and Services.¹

No single document embodies the basic telecommunication agreement. Rather, the agreement is comprised of the following documents:

- The Fourth Protocol to the General Agreement on Trade in Services (GATS);
- Fifty-five supplementary schedules of commitments;²
- Nine lists of most-favored-nation (MFN) exemptions;
- A Reference Paper on pro-competitive regulatory principles; and
- Two notes on scheduling methodology from the Chairman of the WTO's Group on Basic Telecommunications (GBT).

The General Agreement on Trade in Services

The principle document shaping the telecommunications agreement is the General Agreement on Trade in Services (GATS), which is an annex to the Agreement Establishing the World Trade Organization signed in Marrakech, Morocco, on April 15, 1994. The GATS comprises three elements: (1) a framework of general obligations and disciplines for government regulation of trade and investment in services; (2) a series of annexes and ministerial decisions that supplement rules found in the framework and provide a timetable for follow-up activities and additional negotiations; and (3) individual country schedules that

¹ From U.S. International Trade Commission, *Recent Trends in U.S. Services Trade*. 1998 Annual Report, Publication 3105, Investigation No. 332-345, May 1998.

² Although 69 countries signed the agreement, it includes only 55 schedules because the EU submitted a unified schedule, which covers the commitments of all 15 member states.

commit national governments to accord foreign service providers market access and national treatment, subject to defined exceptions (see Annex V).

The GATS framework lists 14 obligations and disciplines intended to facilitate international trade and investment in services. The telecommunications agreement incorporates the obligations set-forth in the framework and, in some instances, highlights certain obligations, making them directly applicable to basic telecommunication services. For instance, the telecommunication agreement incorporates rules on:

- **Most Favored Nation (MFN) treatment**—Article II obligates WTO members to accord other members treatment no less favorable than that accorded to any other country;
- **Regulatory transparency**—Article III requires prompt publication of measures relevant to trade and investment in services and notification of changes to these measures;
- **Domestic regulation**—Article VI requires that all measures affecting trade in services be administered in a reasonable, objective, and impartial manner;
- **Monopolies and exclusive service providers**—Article VIII requires signatories to ensure that monopolies and other firms with market power do not act in a manner inconsistent with scheduled commitments.

GATS Annex on Telecommunications

The GATS Annex on Telecommunications ensures that all firms requiring the use of telecommunication networks will be provided adequate access to national telecommunication infrastructures. The annex stipulates that negotiations were to focus on "public telecommunication transport networks and services," thereby signaling that WTO members would negotiate conditions of access to, and use of, telecommunication facilities, as well as the provision of services. The annex also stipulates that cable and broadcast distribution of radio and television programming would fall outside the scope of negotiations. With respect to network access, the annex stipulates that foreign firms requiring the use of telecommunication networks would be accorded access to and the use of public telecommunication networks (PTNs) on reasonable and nondiscriminatory terms and conditions.

Ministerial Decisions and the Fourth Protocol

Two ministerial decisions also shaped the telecommunication agreement:

- (1) The Ministerial Decision for Negotiations on Basic Telecommunications, issued December 15, 1993, indicated that negotiations on basic telecommunication services would be undertaken on a voluntary basis and would be comprehensive

in scope, with no basic telecommunication service excluded. It also established the Negotiating Group on Basic Telecommunications (NGBT) to undertake negotiations and indicated that the NGBT should make its final report no later than April 30, 1996.

- (2) The Decision on Commitments in Basic Telecommunications.³ This decision, issued April 30, 1996, replaced the Negotiating Group on Basic Telecommunications (NGBT) with the Group on Basic Telecommunications (GBT). The GBT set January 15 to February 15, 1997 as the period during which WTO members could modify or supplement schedules and MFN exemption lists. The GBT also adopted the Fourth Protocol of GATS in order to preserve the best offers to date, and to incorporate finalized schedules and MFN exemptions in GATS. Finally, the GBT invited WTO members who had not participated in the negotiations to submit commitments and MFN exemptions for approval by January 1, 1998.

Supplementary Schedules on Basic Telecommunications Services

Scheduling Methodology

GATS signatories schedule commitments on both market access and national treatment with respect to four distinct modes of supply (i.e., cross-border supply, consumption abroad, commercial presence, and presence of natural persons), meaning that eight explicit or implicit schedule entries are recorded for each of the industries currently covered under the GATS. To date, 131 countries have specified commitments on trade and investment in services.

Within national schedules, signatories made:

- Full market access and/or national treatment commitments, which indicate that no sector-specific restrictions exist; or
- Partial commitments, which describe existing restrictions;⁴ or
- Unbound limitations on commitments, which indicate that a country preserves its right to impose additional restrictions on market access and/or national treatment in the future without penalty.

³Adopted by the Council for Trade in Services when WTO members agreed to extend talks past the April 1996 deadline.

⁴ Full and partial commitments are "binding" under the terms of GATS, meaning a country is not allowed to implement more restrictive policies in the future unless it is willing to compensate aggrieved parties.

Telecommunication Schedules

Commitments on basic telecommunication services appear in supplementary schedules and constitute the bulk of the telecommunication agreement. Basic telecommunication schedules are especially complex because they not only delineate market access and national treatment commitments regarding the seven basic telecommunications services, but also communicate commitments regarding distinct geographic telecommunication markets (e.g., local, long-distance, and international markets), distinct network technologies (e.g., wireline, cellular, and satellite networks), and facilities-based and resale services. Supplementary schedules further delineate commitments regarding regulatory principles.

Chairman's Notes

To simplify commitments on geographic markets, network technologies, and facilities-based and resale services, the Chairman of the GBT issued a note to WTO members on January 6, 1997, indicating that, unless otherwise specified in a country's schedule, commitments pertaining to basic telecommunications would apply to:

- Local, long-distance, and international services for public and non-public use;⁵
- Networks based on all transmission technologies (e.g., wireline, cellular, and satellite networks); and
- Facilities-based and resale services.

Thus each supplementary telecommunication schedule implicitly or explicitly indicates through its market access and national treatment commitments the extent to which foreign telecommunication firms may gain access to local, long-distance, and international service markets through all means of network technologies on a facilities basis or through resale. Additionally, each supplementary schedule indicates the extent to which foreign firms may acquire, establish, or hold a significant share in national telecommunication firms.

Pro-Competitive Principles

In order to safeguard the value of market access commitments, GBT signatories also made supplementary schedule commitments on pro-competitive regulatory principles. Itemized in a Reference Paper, these pro-competitive principles include commitments to:

- safeguard against anticompetitive practices, including cross-subsidization, among monopolies or other firms with market power;

⁵ The term "non-public use" covers services provided over private networks, such as those used for intra-corporate networks.

- provide timely and cost-based interconnection under nondiscriminatory terms, conditions, rates and quality;
- provide transparent and nondiscriminatory universal service requirements that are no more burdensome than necessary;
- provide transparent and publicly available licensing criteria and reasons for denial;
- ensure the independence of regulators from suppliers of basic telecommunication services; and
- allocate scarce resources, including frequencies, numbers, and rights of way, on an objective, timely, transparent and nondiscriminatory basis.

In February 1997, 57 of the 69 governments scheduled the pro-competitive commitments listed in the Reference Paper in whole or in part. Six other countries scheduled commitments that bind them to observe regulatory principles of their own creation.

Table 1 provides an overview of the World Trade Organization's Basic Telecom Agreement.

Table 1 - Overview of the Basic Telecommunication Agreement

Document	Provisions
Ministerial Decision on Negotiations on Basic Telecommunications (December 15, 1993)	<ul style="list-style-type: none"> • Specified that WTO members would participate in negotiations pertaining to basic telecommunication services on a voluntary basis. • Specified that negotiations should be comprehensive in scope. • Established the Negotiating Group on Basic Telecommunications (NGBT). • Specified that negotiations should commence no later than May 16, 1994, and conclude by April 30, 1996.
General Agreement on Trade in Services (GATS) (April 15, 1994)	<ul style="list-style-type: none"> • Called on WTO members to observe 14 general obligations conducive to trade and investment in services (e.g., MFN treatment, regulatory transparency, domestic regulations, monopolies and exclusive service providers). • Called on WTO members to schedule market access, national treatment, and additional (optional) commitments specific to certain industries, including basic telecommunications and enhanced telecommunication, in enhanced schedules of commitments. • Called on WTO members to observe eight annexes, two of which pertain to telecommunications (the Annex on Telecommunications and the Annex on Negotiations on Basic Telecommunications).
Annex on Telecommunications (April 15, 1994)	<ul style="list-style-type: none"> • Required signatories to allow service providers access to and use of public telecommunication transport networks and services (PTTNS). • Required signatories to interconnect private-leased or owned circuits with PTTNS or with circuits leased or owned by another service supplier. • Required signatories to allow the use of protocols of the service supplier's choice in the supply of any service. • Required signatories to allow service suppliers use of PTTNS for the movement of information within and across borders, including for intra-corporate communications of such service suppliers. • Provided for technical cooperation through bodies such as the International Telecommunication Union (ITU) and the International Organization for Standardization (ISO). • Excluded cable and broadcast distribution of radio and television programming from the scope of negotiations.

continues on next page. . .

Table 1 (cont.)

Document	Provisions
Annex on Negotiation on Basic Telecommunications (April 15, 1994)	<ul style="list-style-type: none"> • Required signatories to accord MFN treatment by agreed date if negotiations succeed, or by April 30, 1996, if negotiations did not succeed.
Decision on Commitments in Basic Telecommunications (April 30, 1996)	<ul style="list-style-type: none"> • Adopted the "Fourth Protocol to the General Agreement on Trade in Services." • Established January 15, 1997 to February 15, 1997 as the period during which WTO members with schedules attached to the Fourth Protocol could supplement or modify national schedules and lists of MFN exemptions. • Established the Group on Basic Telecommunications (GBT) to carry negotiations forward to February 15, 1997. • Allowed WTO members that had not attached national schedules or lists of MFN exemptions to the Fourth Protocol to submit such documents by January 1, 1998.
Fourth Protocol to the General Agreement on Trade in Services (April 30, 1996)	<ul style="list-style-type: none"> • Annexed national schedules and lists of MFN exemptions concerning telecom to the GATS. • Established November 30, 1997, as the deadline for acceptance of the protocol (and thus final national schedules and lists of MFN exemptions). • Indicates that the Protocol will enter into force on January 1, 1998.
Chairman's Note of January 16, 1997	<ul style="list-style-type: none"> • Outlined the assumptions that underlie the scheduled commitments on basic telecommunication services. • Indicated that, unless explicitly exempted in the schedules, basic telecommunication services: <ul style="list-style-type: none"> i. Encompass local, long-distance, and international services for public and non-public use; ii. May be provided on a facilities basis or by resale; and iii. May be provided through any means of network technology (e.g., wireline, terrestrial wireless/cellular, or satellite). • Indicated that private-leased circuit services involve the ability to sell or lease any type of network capacity (e.g., wireline, cellular, or satellite networks) for the provision of any type of basic telecommunication services, unless explicitly exempted. • Stipulated that signatories may maintain separate entries for cellular and mobile services.
Chairman's Note of February 3, 1997	<ul style="list-style-type: none"> • Indicated that signatories do not need to list as market access restrictions frequency/spectrum management policies, including the ability to allocate frequency bands taking into account existing and future needs.

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Table 1 (cont.)

Document	Highlights
Report of the Group on Basic Telecommunications (February 15, 1997)	<ul style="list-style-type: none"> • Summarized issues addressed since April 30, 1996. • Indicated that 55 schedules (submitted by 69 countries) and nine lists of MFN exemptions had been submitted by February 15, 1997. • Indicated agreement among WTO members that differential accounting rates applied to international traffic should not give rise to dispute settlement procedures as MFN violations, yet indicated this understanding will be reviewed no later than January 1, 2000. • Noted that further national schedules and lists of MFN exemptions may be submitted prior to January 1, 1998.
55 Schedules of Commitments and 9 Lists of MFN Exemptions (February 15, 1997)	<ul style="list-style-type: none"> • Listed market access and national treatment commitments on basic telecommunication services in 69 countries. • Listed commitments on pro-competitive regulatory principles found in the Reference Paper. • Listed exceptions to MFN treatment by nine WTO members.
Reference Paper on Pro-Competitive Regulatory Principles (February 15, 1997)	<ul style="list-style-type: none"> • Provided for: <ol style="list-style-type: none"> i. Safeguards to protect against anticompetitive practices by major suppliers; ii. Interconnection to PTTNS under nondiscriminatory terms and conditions; iii. Nondiscriminatory and competitively neutral universal service requirements; iv. Transparent licensing criteria; v. Independent regulators; and vi. Nondiscriminatory allocation of scarce resources, including frequencies, numbers, and rights of way.

Source: *United States International Trade Commission and World Trade Organization*

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India's BTA Commitments

India's BTA schedule covers local voice services, both cellular and wireline; circuit-switched data transmission; facsimile; and private-leased circuit services. The schedule excludes long-distance and international voice services and includes only modest market access commitments. Further, India accepted only limited sections of the GBT Reference Paper on pro-competitive principles, choosing instead to make minimal commitments that bind them to observe only regulatory principles of their own creation.

Foreign Investment

India's commitments on foreign investment are actually regressive; they fall well short of India's current policies regarding the allowable level of foreign ownership of telecommunication service providers. India committed only to allow 25 percent foreign ownership of local wireline and cellular voice service providers, but current national policy allows foreign investors up to 49 percent ownership of such carriers. India made no commitments regarding foreign investment limits for its monopoly international carrier Videsh Sanchar Nigam Ltd. (VSNL).

Market Access

India grants licenses for the provision of local wireline voice telecommunication service only if a "designated authority" determines that a need exists for such services. India neither identifies the designated authority nor requires that such authority be independent from telecommunication service providers. Further, carriers that receive licenses to provide telecommunication services are subject to unspecified terms and conditions laid down by the designated authority, the government, or the prevailing laws.

If the designated authority determines that a need exists, India will allow one additional carrier to provide local wireline services in competition with the Department of Telecommunication (DoT) or Mahangar Telephone Nigam Ltd. (MTNL) within each service area for at least 10 years. The carriers that receive licenses in each service area may provide voice, facsimile and data transmission services using circuit-switched technology. Licensees are also allowed to provide leased circuits to their customers within their service area, but they are not allowed to sell excess capacity over these circuits. They may grant franchises on a commission basis for providing payphone services.

India has not made any commitments with respect to long-distance and international telecommunication services other than to review the status of each of these markets in 1999 and 2004 respectively.

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Regulatory Principles

India scheduled no commitment to prevent cross-subsidization, thus allowing DoT and MTNL to subsidize non-competitive local exchange operations with monopoly revenues from long-distance operations. India's commitments on interconnection provide that interconnection with a major supplier be ensured at points "specified in the license," rather than at "any technically feasible point" as the GBT Reference Paper states. More significantly, India did not make binding commitments to Reference Paper principles that ensure interconnection in a timely fashion under terms, conditions, or rates that are transparent, reasonable, economically feasible, nondiscriminatory, or unbundled.

India accepts the Reference Paper's requirement that universal service be defined in a transparent and nondiscriminatory manner but not the obligation to make regulation of universal service competitively neutral or no more burdensome than necessary. Finally, India scheduled no commitments to publish the normal time period for reaching a decision on license applications, to allocate the use of scarce resources in a transparent and nondiscriminatory manner, or to make publicly available the current state of allocated frequency bands.

In the absence of stronger commitments on pro-competitive regulatory principles, it is not clear that market access and investment commitments pertaining to either basic or enhanced telecommunication services will materially increase opportunities for U.S. participants in India's market.

The History of Telecommunication Services in India

India gained independence from British rule on August 15, 1947. Along with independence came Jawaharlal Nehru and his political ideology that the state would have to capture and control the commanding heights⁶ of the economy. His political beliefs, shaped by Fabian socialism and communist central planning, reflected a profound faith in rationalism, predictability, quantification and planning. He thought competition was bad, and he had "contempt for the price mechanism."⁷ He believed that central planning, strong state control, and government knowledge would do a better job of allocating investment and determining output than the market.

Table 2 - History of Indian Telecommunications

Year	
1851	First operational land lines were laid by the government near Calcutta (seat of British power)
1881	Telephone service introduced in India
1883	Merger with the postal system
1923	Formation of Indian Radio Telegraph Company (IRT)
1932	Merger of ETC and IRT into the Indian Radio and Cable Communication Company (IRCC)
1947	Nationalization of all foreign telecommunication companies to form the Posts, Telephone and Telegraph (PTT), a monopoly run by the government's Ministry of Communications
1985	Department of Telecommunications (DOT) established, an exclusive provider of domestic and long-distance service that would be its own regulator (separate from the postal system)
1986	Conversion of DOT into two wholly government-owned companies: the Videsh Sanchar Nigam Limited (VSNL) for international telecommunications and Mahanagar Telephone Nigam Limited (MTNL) for service in metropolitan areas.
1997	Telecom Regulatory Authority created.

The perception that the state could be trusted and that the market could not was consistent with post-World War II experience, the views of leading economists, as well as the advice of international donor agencies. Thus, independent India decided that its telephone and telegraph systems would be strictly a government monopoly administered by its own civil service (see Table 2).

What ensued has become known as the "Permit Raj," a complex, irrational and almost incomprehensible system of regulations and licenses that controlled every step of production, investment, and foreign trade. Permission from state bureaucrats was required for setting up or closing factories, increasing or decreasing capacity, or downsizing the labor force. India's drive for self-sufficiency—manifested in inward-looking, import-substitution policies fashionable in the developing world in the 1950s and 1960s—ultimately stifled competition and economic growth.

⁶ Yergin, Daniel and Joseph Stanislaw. *The Commanding Heights: The Battle Between Government and the Marketplace that is Remaking the Modern World*. Simon & Schuster, New York, 1998.

⁷ Ibid

Under pressure from domestic and foreign capital, international lending agencies, and foreign governments, India began to open its markets and divest its public sector enterprises in the 1980s. India began to face the harsh fact that the welfare-maximizing benevolent state it had envisioned decades earlier had never materialized. What did develop was massive corruption of the public domain characterized by deals between politicians, bureaucrats and enterprise leaders.

In the mid-1980s, Rajiv Gandhi's administration removed restrictions on imports and exports, which led to an enormous increase in imports to meet the pent-up demand of the Indian middle class. But the lack of a comparable increase in exports led to a trade deficit.

The problem reached crisis proportions when oil prices skyrocketed during the Gulf War and caused India's already fragile balance of payments deficit to soar. In 1991, the state was forced to choose between defaulting on its external debt payments or going to the International Monetary Fund (IMF) for loans. The government opted for taking medium-term loans from the World Bank and IMF to repay its short-term debt. In return, India agreed to remove barriers to private domestic and foreign capital investment and to integrate its economy into the global capital market. The crisis gave Indian free-market leaders an opportunity to force change that would hopefully cure the fundamental ailments of the economy—too much regulation and control and not enough competition.

Prime Minister Narshimha Rao kept with the changes initiated by the Rajiv Gandhi administration and the interests of the expanding middle class. Upgrading India's telecommunications infrastructure was among the numerous goals set-forth in Rao's New Industrial Policy of 1991. The government's increased awareness of the important role of telecommunications was exemplified in the Government of India's Economic Survey of 1993-1994:

Telecommunication is important not only because of its role in bringing the benefits of communication to every corner of India but also in serving the new policy objectives of improving the global competitiveness of the Indian economy and stimulating and attracting foreign direct investment.
(*Economic Times*, 1994)

Nonetheless, India has decided to follow a relatively cautious path of telecommunications liberalization. The reasons are complex and varied, but four main concerns have prevented more rapid restructuring. The government and other interest groups fear that:

1. in a region full of conflicts, liberalization and privatization would threaten national security;
2. in the absence of pressure from large business users or high-tech communities, telecommunications services will not improve;

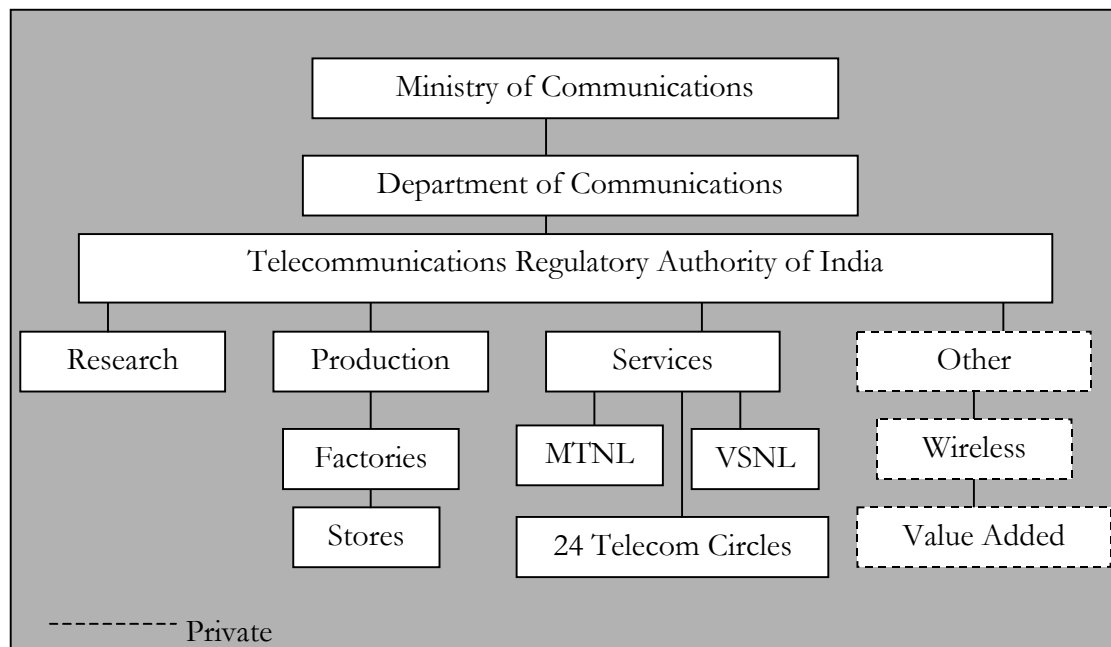
3. privatization would lead to unemployment; and
4. the government would not be able to replace revenue it now gets from its state-run telecommunications network.

Owing to its historical and economic circumstances, as well as its need for internal political accommodation, India has been slow to move toward privatization of its telecommunications sector. Lacking significant pressure from large business users or high-tech communities and fearful of the costs of competition, India has made only gradual liberalizations that do not meet the recommendations of the WTO, international lending institutions, and the United States.

But subject to increasingly fierce international competition from callback services, Internet phone, low-earth-orbit satellites, and global operators, there is little doubt that new technology will progressively and irreversibly erode the market position of India's telecommunication monopolies and their high profit margins. As a result, the financial value of these companies will deteriorate, making them less attractive to future investors. India has everything to gain from accelerating its telecommunications liberalization effort.

The Current Structure of India's Telecommunications Monopoly

Table 3 - Structure of India's Telecommunications Monopoly



This paper was researched and written to fulfill the M.A. project requirement for completing the Monterey Institute of International Studies' Master of Arts in Commercial Diplomacy. It was not commissioned by any government or other organization. The views and analysis presented are those of the student alone. For more information about the Commercial Diplomacy program and the M.A. project requirement, please visit www.commercialdiplomacy.org.

Until 1985, the Indian Telegraph Act of 1885 and the Wireless Telegraph Act of 1932 provided the legal basis for the central government's telecommunications monopoly. Under these laws, posts and telecommunications were combined in one P&T department run by the Ministry of Communications. In the late 1970s and early 1980s protests against poor service by subscribers, politicians, industrialists, and business leaders coincided with global and national pressure for liberalization. As a result, a parliamentary committee was established in 1981, which recommended numerous structural and service improvements. Under the advice of this committee, Rajiv Gandhi ordered the bifurcation of the Ministry of Posts and Telegraphs in 1985. A separate Department of Telecommunications (DoT) was established under the Ministry of Communications (see Table 3),⁸ and two supposedly autonomous public sector undertakings (PSUs) were created to expand, develop, and manage crucial segments of the Indian telecommunications system.

- The Mahanagar Telephone Nigam Limited⁹ (MTNL) was set up to run services in Delhi (the nation's capital) and Mumbai, formerly Bombay (the nation's commercial center), which together account for 25 percent of the nation's phone lines.
- Telecommunication in the rest of the country continues to be run as a government department because of staff resistance to change.
- Videsh Sanchar Nigam Limited¹⁰ (VSNL) was set up to run international services.
- DoT was established as the exclusive, self-regulating provider of domestic and long-distance service.

Table 4 shows that DoT achieved significant success. From 1992-1996, DoT doubled practically every aspect of the telecommunications infrastructure in India, from the number of telephones in service to the long distance route kilometers. DoT did not, however, succeed in reducing the registered waiting list for telephones, and in 1994, the government acknowledged the need to liberalize India's telecommunications market.

⁸ A minister of state who is a member of the publicly elected ruling party heads the Ministry. The DoT reports to the minister through a secretary who is also director general of the DoT and chairman of the Telecom Commission (a body formed in 1989 by reconstitution of the Telecom Board).

⁹ The government has so far divested 35 percent of MTNL's equity.

¹⁰ The Government has diluted its ownership of VSNL from 82 to 65 percent through Global Depository Receipts (GDR).

Table 4 - India's Network Development, 1992-1996

Indicator	1992	1993	1994	1995	1996
Telephones in service (thousands)	6706	7713	8877	10588	12892
Telephone lines per 100 inhabitants	0.77	0.88	0.99	1.15	1.38
New lines installed (thousands)	735	987	1229	1770	2183
Lines in service (thousands)	5810	6797	8026	9795	11978
Lines in service per 100 inhabitants	0.67	0.77	0.89	1.07	1.28
Long-distance route kilometers	94476	107462	122957	142113	168633
Number of village public telephones	74404	104476	137447	185136	216632
Local call pulses (billions)	29.8	40.1	46.7	58.6	78.5
Registered waiting list for telephones (thousands)	2289	2845	2497	2153	2277

Source: *Department of Telecommunications, India*

The National Telecom Policy (NTP) of 1994 (see Annex IV) provided the basis for liberalizing the telecommunications market. It recognized the importance of liberalization and private sector participation as key elements of economic development. It also envisaged, among other things, the provision of basic telephone service by private companies that would compete with DoT; the establishment of an independent regulatory body;¹¹ and the separation of DoT's operational, policy, and ministerial functions.

The NTP has led to various liberalization successes. However entrenched bureaucracy, inefficient lobbying and poor public information campaigns have largely undermined the policy domestically, and demand for telephone lines in India remains extremely high (see Table 5). On the international front, the NTP has prevented India from making more liberal commitments to the WTO.¹² India has refused to go beyond the NTP's very limited policies in making commitments to the WTO Basic Telecommunications Agreement.

The NTP provides that:

- DoT will not be corporatized, which ensures that labor unions have no big issue to fight;
- Private sector companies will be issued licenses for statewide operations in competition with DoT for basic telephones. This establishes a duopoly system for 15 years in 21 statewide service areas (or circles);

¹¹ The Telecommunications Regulatory Agency of India (TRAI) was established in 1997 as an independent agency with adjudicatory powers to resolve disputes between service providers and to act as an arbitrator for disputes between the government (as licensor) and licensee. TRAI is still struggling to define its powers and responsibilities.

¹² On April 1, 1999, a New Telecom Policy (NTP 1999) entered into force. Although it emphasizes the importance of competition in the telecommunications sector, it will be difficult to implement due to flaws inherent in the NTP's objective. Moreover, bureaucrats and the public continue to voice objections to it.

- Mobile telephone services will be offered solely by non-DoT private sector companies, at least two in each service area. The initial license period is 10 years, extendable thereafter in five-year increments;
- Foreign equity participation will be allowed in public telephone operations of at least 500,000 basic telephone customers and 100,000 mobile phone customers;
- Private carriers must commit to public service obligations such as rural area coverage and public telephones;
- Interstate and international telecommunications will be the exclusive monopoly of DoT and its company VSNL.

Table 5 - Projected Demand for Telephone Lines in India

Year (April-March)	Projected Demand (million lines)	Increase (million lines)
1997-1998	17.4	
1998-1999	20.5	3.1
1999-2000	23.4	2.9
2000-2001	26.8	3.4
2001-2002	30.7	3.9
2002-2003	35.2	4.5
2003-2004	40.3	5.1
2004-2005	46.3	6.0
2005-2006	53.0	6.7

Source: *Department of Telecommunications, India*

III. COMMERCIAL ISSUE ANALYSIS

The U.S. Telecommunication Industry

The U.S. telecommunications industry (products and services) is the largest in the world, generating over US\$ 450 billion in economic activity in 1996; employing close to two million U.S. citizens (Table 6); and contributing close to US\$ 8 billion in taxes to the U.S. federal government (Table 7). Of the US\$ 230 billion of manufactured telecom products, over \$21 billion was exported (Table 8).

Despite the size and growth potential of the Indian telecommunications market, India imported only US\$ 116 million, or 0.55 percent of U.S. telecommunication products in 1996 (Table 9).

Many sectors of the U.S. telecommunications market are approaching maturity and are increasingly forced to search for alternative telecommunications markets into which they can expand. India is in its primary stages of development and exhibits considerable latent demand for telecommunications products and services. As a consequence, the U.S. telecommunications industry is becoming increasingly focussed on its ability to take advantage of the unparalleled opportunities presented in India.

U.S. telecommunications companies have a strong interest in encouraging India to commit to all principles listed in the WTO BTA Reference Paper.

Table 6 - U.S. Telecommunication Products, Establishments, Revenue and Employment (1996)

Industry	Establishments	Revenue (\$ mil)	Employment
Telephone Communications	24,730	171,580.1	928,245
Radiotelephone Communications	3,063	12,269.7	61,077
Telephone communications, except radiotelephone	21,667	159,310.4	867,168
Telegraph and other message communications	489	988.1	5,536
Communication Services (other)	1,008	2,357.9	9,737
Radio and television broadcasting	8,549	28,228.9	221,755
Radio broadcasting stations	6,956	6,865.4	112,385
Television broadcasting stations	1,593	21,363.5	109,370
Cable and other pay television stations	4,468	27,512.1	128,963
Communications	39,244	230,667.2	1,294,236

Source: *Handbook of North American Industry*

Table 7 - Telecommunication Services Revenue

\$ Mil	1989	1992	1993	1994	1995	1996
Revenues	158,068	160,353	172,860	186,214	199,055	213,532
Employment (000)	901	893	886	901	924	955
Taxes	5,086	5,194	5,681	6,603	7,539	7,978
Hourly Earnings (\$)	14.14	15.11	16.62	15.93	16.26	16.65

Source: *U.S. Industry and Trade Outlook, 1998 and the Statistical Abstract of the United States (1998)*

Table 8 - U.S. Exports of Telecommunication Equipment by Sector

(thousands of US\$)	1996	1997	Change (percent)
Telephone Sets and Parts	349,557	514,017	47
Telephonic Apparatus and Parts	3,834,850	4,404,158	15
Telegraphic Apparatus and Parts	1,249,033	1,688,564	35
Radio Transmitters	606,869	792,600	31
Radio Receivers	365,337	387,519	6
Radio Transceivers	1,704,526	2,034,774	19
Telephone Answering Devices	127,349	102,505	-20
Communications Satellites/Transmission Reception App.	4,018,223	5,397,096	34
Cellular Telephones	1,983,632	1,913,040	-4
Facsimile Machines	88,415	46,336	-48
Modems	1,112,300	1,287,496	234
Paging Alert Devices	3,417	6,024	2
Fiber Optic Cable	651,051	818,415	76
Other Cable and Parts	475,864	527,509	11
Total:	16,956,365	21,004,407	24

Source: *Telecommunication Industry Association*

Table 9 - Top 10 U.S. Export Markets

(thousands US\$)	1996	1997	Percent Change	World Total (%)
1. Canada	2,520,836	2,887,649	15	13.74
2. Japan	1,975,805	2,007,136	2	9.55
3. Mexico	1,099,530	1,531,914	39	7.29
4. Brazil	775,980	1,472,569	90	7.01
5. Hong Kong	786,156	1,212,024	54	5.77
6. United Kingdom	978,677	1,200,601	23	5.71
7. South Korea	959,614	929,012	-3	4.42
8. China	778,074	753,427	-3	3.58
9. Israel	562,011	535,426	-5	2.54
10. Germany	374,487	486,946	30	2.31
India	91,700	116,550	27	0.55

Source: *Telecommunication Industry Association*

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The Indian Telecommunications Market

With a population fast approaching one billion and an underdeveloped telecommunications infrastructure, India's unfulfilled demand for telecommunications products and services is huge. India is currently the world's second most attractive telecommunications products and services market:

- India's teledensity is just 1.38 phones per 100 hundred inhabitants (one of the lowest teledensities in the world);
- 2.3 million people are on India's registered waiting list for phones (it takes two or more years to get a phone in India);
- India has between 200,000 and 300,000 middle-class consumers;
- 97 percent of India's 600,000 villages have no telephone at all;
- The demand for basic telephones lines in India is expected to reach 31 million by 2001, 42 million by the year 2005, and 64 million by 2006, up from the current total of 9 million, and this will require an investment of at least \$60 billion by 2006 (at current prices and import duty structures).

Table 10 - The Indian Telecommunications Market

(US\$ million)	1996	1997	1998 (Est.)
Total Market Size	3275	4315	5722
Total Local Production	2293	3054	4094
Total Exports	--	--	--
Total Imports	982	1261	1628
Imports from the U.S.	91	116	651

Subsector	(US\$ million)
Switching & Transmission equipment	3800
Value-added services	660
VSATs (Very Small Aperture Terminals)	560

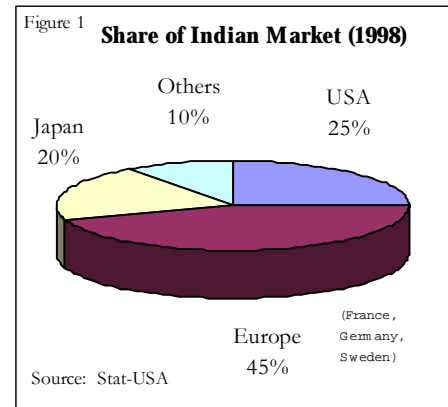
Source: *National Trade Databank*

In addition to the pent-up demand for telecommunication products and services in India, Indian companies have a strong interest in the latest U.S. telecommunication products and technologies; U.S. telecommunication products and technologies are highly regarded in the Indian market place. But U.S. companies cannot afford to passively wait for market opportunities to open in India. French, German, Swedish, Japanese, Korean, Canadian, Australian, Singaporean, Finnish, and Hong Kong firms are all aggressively marketing their telecommunications products in India (see Tables 11-13 and Figure 1).

Table 11 – Non-U.S. Telecommunication Companies Doing Business in India

Firm	Country
Deutsche Telecom A.G.	Germany
Telestra Corporation Ltd.	Australia
Bezeq	Israel
Shinawatra	Thailand
Nippon Telephone & Telegraph	Japan
Itochu	Japan
Harris Corporation	Canada
Bell Canada	Canada
PTT Guangdong	China
Moscow Telecom	Russia
Ericsson	Sweden
Siemens	Germany
Fujitsu	Japan
Kokusai Electric Company	Japan
Alcatel	France
AT&T	USA
Lucent Technologies	USA
Motorola	USA

Source: *US Department of Commerce*



The U.S. Stake in Foreign Telecommunications Markets

According to the Economic Strategy Institute, the WTO Basic Telecommunication Agreement could lead to the creation of approximately one million more U.S. jobs over the next ten years—*if* all countries make additional WTO BTA commitments.

The Agreement will also save billions of dollars for American consumers. Executive branch agencies and the FCC estimate that the average cost of international phone calls will drop 80 percent, from an average of \$1 to less than 20 cents per minute over the next several years. Every American with relatives or friends overseas and every business that operates internationally will benefit—*if* all countries make additional WTO BTA commitments.

Clearly, the biggest gains will come when countries with large unfulfilled demand make better BTA commitments. Accordingly, the United States should focus on opening the Indian market, the second largest economy in the world.

If U.S. firms were able to capture just 25 percent of non-U.S. telecommunications services markets around the world, U.S. firm revenue would increase by \$72 billion, and approximately \$3.61 billion in net income would be repatriated to the United States. If U.S.

firms continue to maintain this share of foreign telecommunications services markets until the year 2005, U.S. firms would accumulate over \$874 billion in revenues.¹³

Table 12 - Largest 20 Foreign Telecommunication Markets (measured by export revenue), 1995

Rank	Country	Revenue (million US\$)
1	EU	170458.6
2	Japan	93562
3	Australia	11493.3
4	Canada	10274.2
5	Switzerland	889.2
6	Korea	8727.8
7	Brazil	8622.2
8	Mexico	6509.1
9	Argentina	6183
10	Hong Kong	5112.7
11	South Africa	3674.7
12	India	3253.2
13	Norway	3234.3
14	Indonesia	2735
15	Singapore	2539.9
16	Israel	2248.9
17	Poland	2161.5
18	Malaysia	2097.5
19	New Zealand	2091.1
20	Thailand	2040.6

Source: International Telecommunication Union, *World Telecommunication Development Report, 1996-97*

Table 13 - Investment in the Largest 20 Telecommunications Markets, 1995

Rank	Country	Investment (million US\$)
1	EU	41007.3
2	Japan	35442.3
3	Brazil	4404.1
4	Korea	3634.2
5	Australia	2818.8
6	Argentina	2609.4
7	Switzerland	2580.5
8	Canada	2096.1
9	India	1793.5
10	Indonesia	1650.6
11	Malaysia	1252
12	Honk Kong	1163.1
13	Mexico	1106.9
14	Poland	886.2
15	Norway	809.4
16	South Africa	768
17	Israel	551
18	Singapore	435.9
19	New Zealand	391.1
20	Thailand	384.5
Total		105784.9

Source: International Telecommunication Union, *World Telecommunication Development Report, 1996-97*

¹³ Economic Strategy Institute

IV. SUBSTANTIVE POLICY ISSUE ANALYSIS

Substantive Policy Issue #1: Should USTR assist U.S. telecommunications firms in expediting Telecommunication Liberalization in India?

The Indian telecommunications market offers enormous opportunity for U.S. companies. There are only nine million phone lines in India today, and this number is expected to increase to 60 million by the year 2006—an increase of over 560 percent. Moreover, the United States is India's largest investor and its largest trading partner, but according to the U.S. Department of Commerce, India currently ranks only 32nd among U.S. export markets. U.S. exports to India in 1996 and 1997 amounted to just US\$ 3.3 and US\$ 3.6 billion respectively, while U.S. imports from India during those same years amounted to US\$ 6.2 and US\$ 7.3 billion. Principal U.S. exports include computers, peripherals, and telephonic and telegraphic parts, equipment and services.

Currently, India has just 1.38 telephones per 100 people. The Government of India has set an ambitious target of six telephones per 100 people, which means that 45 million new telephone lines will need to be installed at an estimated investment of US\$ 60 billion.

Although India enacted telecom liberalization policies in 1994, overall deregulation in India has slowed during the past several years, and numerous barriers to foreign participation in India's telecommunications sector remain. Minor administrative decisions have served to block foreign investment, as have the country's unrealistic and inconsistent policy objectives. Further, India's failure to make greater commitments in the WTO BTA raises doubt as to the sincerity of India's liberalization program.

If India does not make greater BTA commitments, U.S. companies will be hesitant to enter the Indian market and an opportunity to offset some of the U.S. trade deficit with India will be lost. Competitors in Europe, Australia, Asia will be ready to snatch up contracts if U.S. companies don't sign them first.

U.S. firms will be willing to invest in modernizing the telecommunications infrastructure of India only if they can count on fair and stable rules of the game. They have already lost substantial amounts of capital and resources in attempting to do business in India.

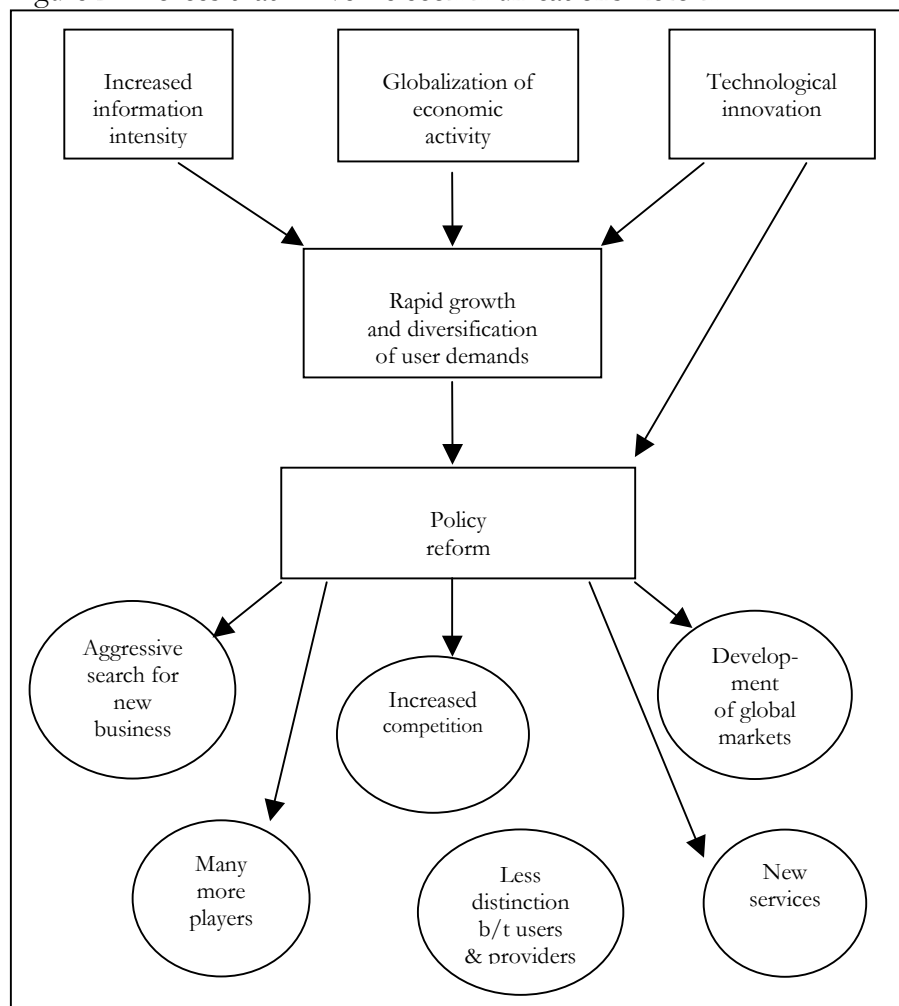
In the absence of stronger WTO BTA commitments on pro-competitive regulatory principles, it is not clear that India's obligations on either basic or enhanced telecommunication services will materially increase opportunities for U.S. participants in India's market. Accordingly, the Telecommunications Alliance should seek USTR's assistance in expediting telecommunication policy reform in India.

Substantive Policy Issue #2: Should India Accelerate Telecom Liberalization?

India's Outdated Monopoly Rationale

A number of Indian officials continue to support the government's monopoly provision of telecommunication services. In their view, a competitive system would result in a wasteful duplication of facilities, inadequate universal services, and "cream skimming."¹⁴

Figure 2 - Forces that Drive Telecommunications Reform



Source: Saunders et. al, *Telecommunications & Economic Development*

¹⁴ Smith, Peter. "Subscribing to Monopoly: The Telecom monopolist's Lexicon Revisited." Note No. 53, The World Bank Group, September, 1995.

1. Wasteful Duplication of Facilities

Indian officials argue that the telecommunications sector is a natural monopoly. Because high overhead costs are associated with establishing a telecommunications network, one supplier can produce a range of telecommunication services more cheaply than multiple suppliers can. To avoid wasteful duplication, Indians argue that state telephone companies should maintain their legal monopoly.

Today, this argument is simply inaccurate:

- **Unmet Demand.** Current government providers of telecommunication services in India are unable to meet current demand, which signals that the established system is not working as intended.
- **Production Inefficiencies.** The absence of competition leads to costly inefficiencies. (It costs US\$ 4,000 to install a telephone line in India but only about US\$ 1,000 to US\$ 1,500 in other developing countries.)
- **Technological Advances.** The "wasteful duplication" argument assumes that economies of scale and scope can be "harvested" only by a single supplier. Although once true, advances in technology now enable providers to supply telephony through various mediums (mobile, cable, "right-of-way" networks, low earth orbiting satellites, etc.). Technological advances also enable convergence of these mediums.

Box 1 - Employment, Liberalization and Developing Countries

India's DoT is grossly overstaffed at 24 telephones per employee, compared to 200 to 300 in the OECD countries. Indian officials and labor leaders fear that competition would trigger significant labor cuts, but the evidence suggests that this has not been the case in other developing countries. Network expansion creates a demand for labor that has outweighed the trend toward workforce reduction (Petrazzini and Clark, 1996).

2. Universal Service & Cross-Subsidies

Universal service is widely accepted as a legitimate public policy objective. However, depending on prices, household income, and consumption preferences, many households choose *not* to subscribe to telephone service, and therefore, it is not profitable to provide service to particularly poor market segments or regions, particularly in developing countries. With this in mind, India argues that, to achieve universal service, cross-subsidies are required, and a monopoly is needed to generate super-normal profits to fund this subsidization. Cross-subsidies normally flow from international and national long-distance

service to local service, from urban to rural subscribers, and from business to residential service.

There are several problems with this argument:

- **Priorities.** Universal service, if it means a telephone for every household, is not necessarily the right goal for India where per capita income is low and capital scarce. The country has higher priorities.
- **Competition can lead to universal service.** Subsidization is not necessarily the best route to universal service. Since India is suffering from chronic unmet demand for telephone service, the key problem is inadequate supply (inadequate investment and inefficient investment and operations), not inadequate demand. While this demand may not result in universal service in the short run, competition in the industry will spur innovation and keep downward pressure on costs and prices, and these price decreases can be at least as important as subsidies in improving the affordability of telephone service. Competition will also benefit Indian household subscribers who have lost telephone service because they cannot afford to pay the high-priced long-distance portion of their bill (Canadian Minister of Supply and Service, 1986).
- **Market Segment Satisfaction.** Assumptions about the uneconomic characteristics of some market segments may be wrong. What is uneconomic for one segment can be profitable for others.

Box 2 – The Effects of Competition on Universal Service

Among developing countries, there are numerous examples of the positive effect of competition on universal service.

- In China, the entry of a second carrier into the market has dramatically improved the rate of network and service deployment. In 1990, the network growth rate was 25.7 percent. In 1993, after the announcement of competition, the network growth rate skyrocketed to 58.9 percent. In the same year, ten national fiber-optic backbones were completed and a new high-speed communications system (ChinaDDN) was launched. In mobile services, prices dropped by 30 percent and customer subscription grew by 261 percent. The waiting period for new wireline subscription dropped for both business and residential customers by as much as 50 percent.
- In the Philippines, the announcement of competition in 1993 led to a 1,530 percent increase in the annual installation of main lines.

A similar pattern occurs when new technologies such as the Internet are introduced. In OECD countries, for example, growth in number of Internet hosts is five times faster in competitive markets than in monopoly markets. There is nothing to indicate that the same pattern would not occur in developing countries.

Source (Box 1 & 2): UNCTAD, *World Development Report 1997*

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3. Cream Skimming/Cherry-Picking

Indian officials have also argued that new entrants in their telecommunications markets are likely to focus on the most profitable parts of the market – typically international and national long-distance and local business telephone services – or on the largest customers in these market segments.

Cream skimming should be viewed not as a negative and unwholesome activity, but as normal market behavior. “Taking the cream away,” helps correct price distortions and enhance incentives for cost reductions.

India’s Need for Telecommunications Liberalization

The rapid expansion of global services and technological advances places serious pressure on India to create new policies to accelerate telecommunication liberalization. Sooner or later, on its own initiative or forced by technological innovation, India will have to compete with large public operators based in their own domestic market as well as foreign markets.

1. Domestic Competition

- **Right-of-Way Networks.** In order to secure additional revenues, Indian Railways is considering leveraging their "right-of-way" to attract investment in a fiber-optic network. Other sectors with similar rights-of-way will consider following the same path.
- **Wireless Technology.** In addition to the threat "right-of-way" leveraging poses, India will face increasing challenges from CDMA wireless technology that enables users to communicate and transmit large amounts of data with ease and at relatively low costs.

2. International Competition

Until quite recently, governments and public operators in India were fairly effective at blocking international competition in their domestic telecommunications markets. Since the mid-1990s, however, new and difficult-to-control sources of competition have been emerging and spreading rapidly. These include:

- **Callback Operators** — which have thrived due to the differences in tariffs between industrial and developing countries. Callback operators have quickly grabbed a sizeable portion of the telecommunications market in India. Even though there have been attempts to limit competition from callback providers, there is no clear-cut way for India to block callback services without hurting their own business.

- **Internet Phone** — which is a significant potential threat to established public operators. Software invented in 1994 now allows computers connected to the Internet to call telephones in the public switched telephone network (PSTN), and these services can be extended to phone-to-phone communication based on Internet gateways. The software allows telephone users to communicate over the PSTN at Internet prices.
- **Mobile Satellite Services** — which present both opportunities and challenges to public sector operators in India. Using low-earth-orbit satellites (LEOS), mobile satellite services can offer services that complement the PSTN. They also can bypass the public network by providing direct global services to large customers at very low costs. Since large customers account for three to five percent of India's public operator's customer base but more than 50 percent of its revenues, the migration of even a small number of these customers to mobile satellite services could significantly erode the public operator's profits.

India could attempt to contain these pressures through regulatory mechanisms, but there are few policies that can control the expansion of the new technologies, and unprepared public operators in India will find it increasingly difficult to compete against the commercial and technological sophistication and dynamism of international competition. New information technologies and services will progressively and irreversibly erode the market position of DoT, VSNL and MTNL, as well as their profit margins. The financial value of these companies are almost certain to deteriorate, making them even less attractive to future investors.

Since the 1980s, information has been recognized as a fundamental factor of production, along with capital and labor, because businesses are more and more dependent on timely access to physical and informational inputs from around the globe. The information sector accounted for one-third to one-half of GDP and employment in OECD countries in the 1980s, and this number is expected to reach 60 percent for the European Community by 2000.¹⁵

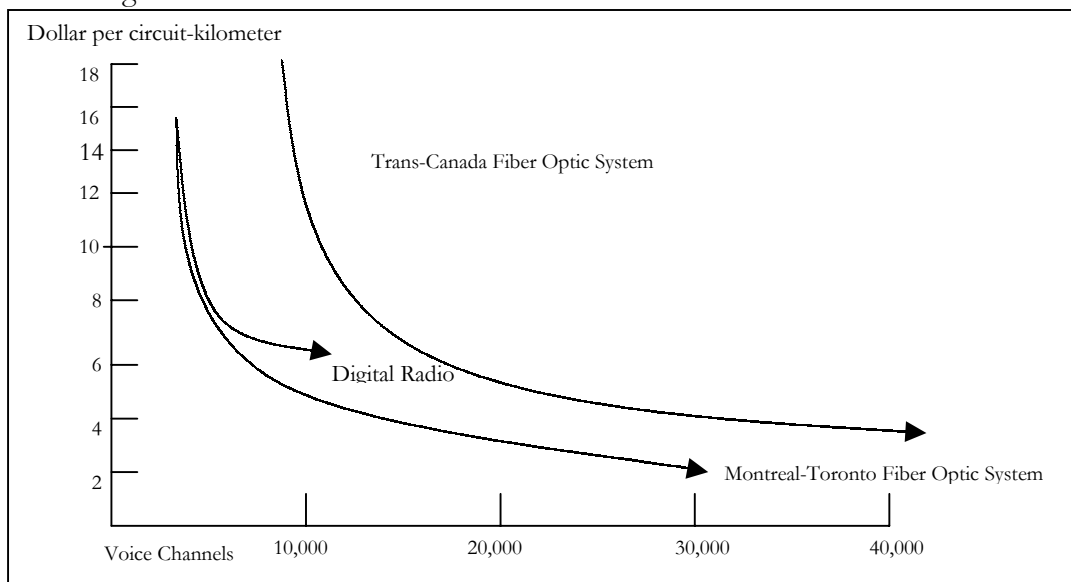
The simple fact is that efficient and diversified telecommunications networks are now vital to the smooth functioning of an economy, and India's economy is no exception. India's information-based industries are expanding rapidly, and these industries are dependent on fast and reliable information transmission. Indian engineers, for example, transmit software code from Bangalore to Texas Instruments; they must be able to transmit large amounts of data securely and at a reasonable cost if they are to remain competitive internationally. By reducing telecommunications costs, India's information industries can become even more competitive.

India's policies need to be reassessed to better address the needs of its information-based industries, as well as other industries.

¹⁵ Saunders, Robert, et. al. *Telecommunications and Economic Development*. Second Edition. John Hopkins University Press, 1994. Page 304.

- Today's end-user needs are multiplying rapidly, which requires a diversification of telecommunications services including security, high volume data transmission, accuracy, and/or control. It is unrealistic to expect that one service provider will be able to meet all these different requirements in a cost effective manner.
- Technological advances now enable providers to supply telephony through various mediums that increasingly blur the boundaries between these mediums.
- Technological innovation also enables the convergence of various networks. For example, cable television and electricity distribution companies in the United Kingdom use electricity distribution ducts and rights-of-way to connect to local telephone network facilities and provide local telephone service.

Figure 3 - Comparative Unit Investment Costs for Three Inter-City Transmission Technologies



Source: *Saunders, et. al, Telecommunications & Economic Development*

V. POLITICAL ANALYSIS: THE UNITED STATES AND INDIA

The United States

The United States Trade Representative (USTR), Federal Communications Commission (FCC), International Trade Administration (ITA), and the National Telecommunications and Information Administration (NTIA) all participate in efforts to liberalize foreign telecommunications markets. Each has the ability to negotiate bilaterally, as well as through multinational fora.

- **USTR** – is responsible for developing and coordinating U.S. international trade and investment policy. It leads or directs negotiations with other countries on such matters. It also has authority to raise U.S. concerns at the World Trade Organization.
- **FCC** – is responsible for developing and implementing policy concerning interstate and international communications by radio, television, wire, satellite, and cable. It also can raise U.S. concerns at the International Telecommunications Union (ITU).
- **NTIA** – is responsible for championing foreign market access by advocating competition and liberalization of telecommunications policies around the world; participating in international government-to-government negotiations to open markets for U.S. companies; and negotiating with foreign governments to ensure adequate spectrum for national defense, public safety, and U.S. business needs.
- **ITA** – is responsible for supporting the growth and competitiveness of the U.S. telecommunications industry by promoting international trade and investment opportunities. ITA advocates on behalf of U.S. telecommunications firms and acts as an intermediary between U.S. firms and foreign government officials.

Members of Congress can help ensure that these agencies give priority attention to improving access to India's telecommunications market. The following table lists those members who are most likely to be sympathetic to the U.S. industry's concerns regarding India.

Table 14 - Members of Congress Likely to Support the Telecommunications Alliance

<i>Senate</i>		<i>House</i>	
<i>Democrats</i>	<i>Republicans</i>	<i>Democrats</i>	<i>Republicans</i>
Roy Wyden, Or	Paul Coverdell	Sam Gejdenson, CT	Ileana Ros-Lehtinen, FL
Wendell H. Ford, Ken	Slade Gorton, Wa	Bobby L. Rush, Illinois	W.J. "Billy" Tauzin, Louisiana
John F. Kerry, Mass	Bill Frist, Tenn	Anna G. Eshoo, California	Ed Royce, CA
John. B. Breaux, Ls	Paul D. Wellstone	Ron Klink, Pennsylvania	Cliff Stearns, Florida
John D. Rockefeller IV, WV	Sam Brownback, Kan	Albert R. Wynn, Maryland	Nathan Deal, Georgia
Daniel K. Inouye, Hawaii	Spencer Abraham, Mic	Gene Green, Texas	Steve Largent, Oklahoma
Ernest F. Hollings, SC	Kay Bailey Hutchison, TX	Karen McCarthy, Missouri	Rick White, Washington
Craig Thomas, WY	John Ashcroft, Missouri	John D. Dingell, Michigan	James E. Rogan, California
Paul S. Sarbanes, MD	Trent Lott, Miss	Edward J. Markey, Mass.	John Shimkus, Illinois
Chuck Hagel	Ted Stevens, Ala	Rick Boucher, Virginia	Paul E. Gillmor, Ohio
Byron L. Dorgan, ND	Conrad Burns, Mon	Bart Gordon, Tennessee	Donald Manzullo, IL
	Joseph R. Biden, Jr.	Eliot L. Engel, New York	Matt Salmon, AZ
		Thomas C. Sawyer, Ohio	Jay Kim, CA
		Thomas J. Manton, NY	J. Dennis Hastert, Illinois
		Robert Wexler, FL	Peter King, NY
		Alcee Hastings, FL	Joe Barton, Texas
		Matthew Martinez, CA	Vice Chairman
		Lois Capps, CA	Christopher Cox, California
		Sherrod Brown, OH	Dan Schaefer, Colorado
		Robert Andrews, NJ	Dana Rohrabacher, CA
		Eni F.H. Faleomavaega, AS	Fred Upton, Michigan
		Tom Lantos, CA	Michael G. Oxley, Ohio
		Bill Luther, MN	Jim Leach, IA
		Howard Berman, CA	Doug Bereuter, NE,
		Bob Clement, TN	Dana Rohrabacher, CA
		Steve Rothman, NJ	John McHugh, NY
		Brad Sherman, CA	Heather Wilson, New Mexico
		Earl Hilliard, AL	Tom Bliley, Virginia
		Pat Danner, MO	Jon Fox, PA
			Doug Bereuter, NE
			Kevin Brady, TX
			Roy Blunt, MO
			Lindsey Graham, SC
			Tom Campbell, CA
			Steve Chabot, OH
			Don Manzullo, IL

Source: *Congressional Handbook*

Each of the Congressmen identified in these tables either has a large U.S. telecommunications company in his district or plays an influential role in House or Senate subcommittees that address telecommunication issues or international trade issues as primary agenda items. TA can count on support from the majority of the individuals listed in Table 14.

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Although many officials listed in Table 14 will be busy supporting other non-telecommunications issues, an effort should be made educate if not enlist the support of everyone on the list. Each official may have influence with other House and Senate members and staffers who would support such market opening efforts.

Associations that will likely lend support to TA's efforts are listed in Table 15. Each association represents numerous private sector enterprises, most of which will eagerly support market-opening intervention by the U.S. government.

Table 15 – U.S. Telecommunications Associations

Interest Group
Coalition of Service Industries
Cellular Telecommunications Industry Association
Wireless Cable Association International
Cable Telecommunications Association
The Satellite Industry Association
The Satellite Broadcasting and Communications Association
International Communications Association
Independent Data Communications Manufacturers Association
Multimedia telecommunications Association
American Mobile Telecommunications Association
International Communications Association
Independent Data Communications Manufacturers Association
Telecommunications Industry Association
Personal Communications Industry Association

Source: *Gail's Encyclopedia of Associations*

Table 16 - U.S. Telecommunication Firms

Company
Advanced Micro Devices
American Telephone & Telegraph (AT&T)
Bell Atlantic
Bell South Telecommunications, Inc.
Cisco Systems, Inc.
3Com Corporation
Compaq Computer Corporation
GTE
Hewlett-Packard Company
Hughes Electronics
Intel Corporation
International Business Machines (IBM)
Lockheed Martin Corporation
Lucent Technologies
MCI International
Microsoft Corporation
Motorola Inc.
NEC USA
Nynex
Qualcom
Rockwell International Corporation
Sprint Communications
US West
Zenith Electronics Corporation

Source: *U.S. Chamber of Commerce*

Table 16 lists some of the largest corporations currently attempting to enter the Indian market for telecommunication products and services. Top level executives from these enterprises will be key to our efforts. These executives can recruit other companies that have vested interests in opening the Indian telecommunications market. Executives from each identified U.S. telecommunications enterprise should also be encouraged to write to their local and national government representatives in order to bring attention to the issue. (See Annex I & II for charts of the key players and the political landscape.)

Table 17 lists the ten states that produce the most telecommunications equipment. It will be important to target members of Congress from these states.

Table 17 - Telecommunication Production by State

State	Establishments	Shipments (\$ mil)	% of U.S.
California	122	4,301.4	19.7
Massachusetts	28	2,531.1	12.3
Texas	43	1,841.3	9
Florida	32	937.1	4.6
Illinois	37	863.2	4.2
New Jersey	26	567.5	2.8
Minnesota	16	442.2	2.2
Georgia	17	375.9	1.5
Alabama	13	282.1	1.4
Virginia	15	242.4	1.2

Source: *U.S. Industry Profiles*

India

Background

In addition to the President, India's parliamentary government includes two houses: the Lok Sabha (House of the People) and the Rajya Sabha (Council of States). Eligible voters directly elect members of the Lok Sabha. State Assembly members elect the members of the Rajya Sabha in accordance with a system of proportional representation.

As in the United States, every bill must be passed by both houses and approved by the President before becoming law. In addition to passing laws, Parliament controls the administration of the country.

Analysis

Although the Government of India recognizes the link between advanced telecommunications and development (see India's NTP 94, Annex IV), it still retains state-controlled monopolies over telecommunications networks.

- Military and government officials remain concerned that, in a geopolitical region full of conflicts, liberalization and privatization would threaten national security.
- Government officials, as well as labor, fear that privatization and liberalization would result in unemployment.

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- Government treasuries have profited greatly from the state-run telecommunications network.

In addition to these fundamental concerns, India will need to overcome a number of other problems before it is likely to agree to further WTO BAT Reference Paper principles. These include:

- A lack of support for institutional change (empowerment of the TRAI, privatization of DoT) from the bureaucracy, legislative and judicial branches of government;
- An inadequate understanding of the economic effects of an enhanced telecommunication infrastructure on individual and state welfare;
- Widespread tolerance of corruption from DoT officials;
- The lack of a cohesive national strategy for telecommunications reform;
- A lack of solidarity to achieve a common goal;
- Citizen apathy toward active participation in the democratic process.

The following charts identify Cabinet and State Ministers who support telecommunications liberalization.

Table 18 - Indian Officials who Support Reform

Cabinet Minister	Portfolio
R.K. Hedge	Minister of Commerce
Sushma Swaraj,	Minister of Information and Broadcasting
Manmohan Singh	Finance Minister
Montek Ahluwalis	Finance Secretary
Naveen Patnaik	Minister of Steel & Mines

State Minister	Portfolio
Sukhbir Singh Badal	Industry
Ramesh Bias	Steel & Mines
Bandaru Dattaraya	Urban Development
Mukhar Naqvi	Information & Broadcasting
Ram Naik	Railways
Kabindra Purkayastha	Communications
Vasundhra Raje	External Affairs
Dilip Ray	Coal

Source: <http://gurukul.ucc.american.edu/MOGIT/LI1116a/policy>

All of the Ministers listed in Table 18 support telecommunications reform; they recognize the significant contribution better telecommunications technologies could make to businesses in their respective portfolios.

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The Minister of Telecommunications, however, has publicly opposed pro-liberalization economists because he faces pressure from telecommunications labor unions and workers—there are some 400,000 telecommunications workers in India, as well as 18 million sympathetic employees in other public sector enterprises. Fearing for their own jobs, career bureaucrats in the Department of Telecommunications (DoT) and the DoT labor unions also have opposed liberalization.

By identifying opposition groups and informing them of the increased opportunities that await them through expedited telecommunications liberalization, TA can begin a grassroots movement to counteract opposition positions.

To convince government officials in India that liberalization is beneficial to the economy, TA needs to launch educational campaigns aimed at changing the Indian public's opinion. These strategies are discussed in greater detail in the media and lobbying strategies sections of this project (see India Strategy).

Table 19 - Indian Opposition to Telecommunication Liberalization

Interest Group	
Bureaucracy	Ministry of Communications, DoT
	Videsh Sanchar Nigam Ltd. (VSNL)
	Mahangar Telephone Nigam Ltd. (MTNL)
	Government Employees
	Labor Unions
Private Companies	M/S Silicon Automation Systems Pvt. Ltd.
	Bhrati Telecommunications
	National Radio & Electronics
	Telephone Cables Ltd.
	Usha Ltd.

Source: Various articles on India (see Bibliography)

Table 20 – Indian Interest Groups that Support Liberalization

Interest Group		
Industry	Steel Authority of India	
	Ministry of Information and Broadcasting	
	Oil & Gas Commission	
	Nationalized Banking System	
	Nationalized Coal Mining Sector	
	Union Government Railways	
	Ministry of Defense	
	Indian Airlines	
	Indian Railway	
	Indian Stock Market	
	Hotel Industry	
	Indian Space Research Organization	
	Associations/Interest Groups	Confederation of Indian Industry (CII)
		The Associated Chambers of Commerce and Industry of India (ASSOCHAM)
Federation of Indian chambers of commerce Industry (FICCI)		
Indian Merchants Chamber		
Indo-American Chamber of Commerce		
Indian Electrical and Electronics Manufacturer's Association		
Telecom Equipment Manufacturers Assoc.		
Indian Electronics & Telecom Engineers		
Cellular Operators Association of India		
Internet Service Providers Association		
Association of Basic Telecom Operators		
Indian Software Developers Association		
Private Companies	Ramtak Electronics	
	HCL Group	
	Himachal Futuristic Communications Ltd.	
	Hindustan Cables Ltd.	
Consumers	Doctors, Lawyers, Professionals and other small businesses	

Source: Various articles on India (see Bibliography)

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Part II

Strategy

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VI. STRATEGY

U.S. DOMESTIC STRATEGY

In order to push India to expedite its telecommunications liberalization process, TA should secure the domestic support of the Federal Communications Commission (FCC), the National Telecommunications and Information Administration (NTIA), the United States Trade Representative (USTR), and the International Trade Administration (ITA), as well as the House and Senate.

Securing Support of Congress

In securing support of the House and Senate, TA should:

- Send a letter from the president of TA (see exhibit) to the House and Senate leadership (as well relevant subcommittees) describing the current situation and the benefits that will come out of U.S. telecommunications investment in India;
- Provide members of Congress, the Senate and their staffs with relevant statistics and data on the U.S. telecommunications industry;
- Testify before the appropriate House and Senate committees and urge them to support our strategy so that the United States can continue to be the industry leader in telecommunications development and deployment (see Exhibit).
- Enlist the support (through attendance in roundtables meetings, etc.) of members of Congress with extensive telecommunication and international relations issue experience. Special attention should be given to W.J. "Billy" Tauzin, Chairman of the House Committee on Telecommunications, Trade and Consumer Protection.
- Encourage members of the Congress to both support TA's efforts and pressure other government agencies to do the same.

Securing Support of Other Government Agencies

The USTR, FCC, ITA and NTIA all have the ability to negotiate bilaterally and through multinational fora. Each agency also has a stake in ensuring that foreign markets are open to U.S. products and services. Therefore, it is important for TA and TA's alliance to contact each of these agencies in order to increase their awareness of U.S. companies' difficulties entering India's market, as well as to invite action from these agencies.

Congress, TA's member companies, and other telecommunications industry associations all need to be encouraged to push each of these government agencies to address telecommunications issues in India.

Alliance Building

TA should contact all U.S. telecommunications industry associations to make them aware of TA's efforts concerning the Indian market (see Table 15).

Each of these Industry Associations will need to enlist the support of their member companies and encourage them to write personalized letters to members of Congress who represent districts where their companies are headquartered. TA also should encourage these industry associations to organize meetings between top-level company executives and congressional representatives. These policymakers need to be briefed on how the liberalization of India's telecommunications market will benefit the U.S. economy generally, as well as benefit local economies in which telecommunications companies are situated.

Academia and Think Tanks

TA should begin contacting each of these universities and think tanks to explore the possibility of them initiating research projects concerning telecommunications trade.

Table 21 - U.S. Universities and Think Tanks

Universities and Think Tanks
Massachusetts Institute of Technology, Research Program on Communications Policy
Stanford, Center for Telecommunications
University of Florida, Telecommunications Industries Analysis Project (TIAP)
University of Texas, Texas Telecommunications Policy Institute
Harvard University, Program on Information Resources Policy
International University of Japan, Center for Global Communications
Economic Strategy Institute
The Brookings Institution
Center for Strategic and International Studies
Council on Foreign Relations
Dewey Ballantine's Trade Group
Council on Competitiveness
Economic Policy Institute

Roundtable Meetings

A roundtable should be organized to hear various industry, government and public viewpoints regarding the telecommunication liberalization process in India. Participants will include public and private sector representatives from the U.S., India, and other countries.

Public Relations Strategy - United States

Media Objective: The media should be engaged in order to convey to our targeted audiences that TA is concerned about India's minimal commitments to the WTO's Basic Telecommunication Agreement. Specifically, our media objectives are as follows: (1) to address concerns raised by our member telecommunication companies—companies that are frustrated by Indian red-tape that slows investment in telecommunication goods and services; and (2) to ensure that TA's actions, as reflected in the media, do not negatively affect our bilateral relations with India.

Strategies: In order to achieve our media objectives we need to convey the following points to demonstrate U.S. involvement and concern over current policy in India:

1. The U.S. industry continually monitors and studies the effects of telecommunication liberalization so as to define "best" policy options and help other countries make a smooth transition to competition in their telecommunications markets.
2. The U.S. industry will also establish a monitoring task force to oversee and report on liberalization processes occurring in India.
3. Finally, the U.S. industry will conduct analyses to demonstrate the benefits of India's National Telecommunication Policy of 1994, which aims at "improving India's competitiveness in the global market." Further goals of India's NTP are to bring telecommunications to all and within the reach of all, increase quality of services and place a phone in all rural villages. In order not make the NTP mutually exclusive, India should create an environment conducive to meeting objectives set forth in it's NTP.

Target Audiences: Government agencies, interest groups and associations, international agencies, and domestic and international media, as outlined in the legislative strategy.

Recommendations: Coordinate with USTR, FCC, DOC, interest groups and international agencies to see if we can organize a joint press conference and/or roundtable meeting to discuss the potential consequences:

1. Organize a joint press conference and/or roundtable discussion to discuss the potential these consequences of slow telecommunication market liberalization;

2. Send out press releases and media advisories informing media and interested groups about TA's efforts (giving special attention to telecommunications assignment reporters from each media source);
3. Prepare press statements for TA's president and press secretary;
4. Invite leading government officials and top industry executives to give statements at press conferences and/or roundtables;
5. Prepare a list of possible questions and answers.

Table 22 and 23 list key media sources. Table 24 lists some of the most well known and respected telecommunication assignment writers in the United States.

Table 22 – U.S. Media

Media Sources
Congressional Reporter
Inside U.S. Trade
Journal of Commerce
Business Week
CNN Interactive
Fox News Channel
MSNBC
National Public Radio
Public Broadcasting Service
CNBC
CBS News Marketwatch
ABC News.com
The Washington Times
The Washington Post
The Wall Street Journal
USA Today
The Seattle Times
San Jose Mercury News
The Philadelphia Inquirer
The New York Times
The Los Angeles Times
The Boston Globe
U.S. News & World Report
The Industry Standard
Foreign Affairs

Source: *News Media Yellow Book*

Table 23 – International Media

International Media
The Financial Post (Canada)
The Globe and Mail
The Toronto Star
The International Herald Tribune (France)
BBC Online (Great Britain)
The Economist (registration needed)
The Financial
The Sunday Times/Times of London
The Straits Times (Singapore)
The Business Times
AsiaWeek
Far Eastern Economic

Source: *News Media Yellow Book*

Table 24 – U.S. Telecommunication Assignment Writers

Telecommunication Assignment Reporter	Title	Media
David Kalish	Business Writer	Associated Press
Jeannine Aversa	FCC Correspondent	Associated Press
David Bowermaster	Reporter	MSNBC
Art Broadsky	Senior Editor	Communications Daily
Andy Brooks	Telecom Reporter	Bloomberg News
Peter Burrows	Correspondent	Business Week
Bryan Gruley	Telecom Staff Reporter	The Wall Street Journal
Leslie Cauley	Telecom Staff Reporter	The Wall Street Journal
Stephanie Mehta	Telecom Staff Reporter	The Wall Street Journal
Elizabeth Douglas	Telecom Reporter	San Diego Union-Tribune
Jube Shiver	Telecom Staff Writer	Los Angeles Times
Lisa Fung	Assistant Business Editor	Los Angeles Times
Leslie Helm	Technology & Telecom Writer	Los Angeles Times
Jessica Hall	Telecom Reporter	Reuters America
Jon Healy	Telecom Reporter	San Jose Mercury News
Frances Hong	Telecom Reporter	San Francisco Examiner
Andrew Kupfer	Senior Writer	Fortune
Lauri Maggi	Telecom Correspondent	States News Service
George Mannes	Telecom Reporter	The Daily News
Barry Nelson	Technology Writer	Syndicated News Intl.
David Pope	Telecom Reporter	Miami Herald
Scott Ritter	FCC Reporter	Dow Jones News Service
Shawn Young	Reporter	Dow Jones News Service
Seth Schiesel	Telecom Reporter	The New York Times

Source: *News Media Yellow Book*

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INDIAN DOMESTIC STRATEGY

In India, TA will need to work toward convincing officials that adoption of all the principles set-forth in the WTO Basic Telecommunication Agreement Reference Paper is desirable and essential for the future success of India's economy. This will require support from India's executive, legislative, and judicial branches of government as well as from Indian ministers, elected officials, private industry representatives, government employees, and the general public. These groups need to be made aware of the benefits that increased competition will bring to India's economy.

The following message emphasizes the important link between telecommunications, development and international competitiveness. It is a message that should resonate in each of TA's activities in India.

"TELECOMMUNICATIONS IS THE BACKBONE OF YOUR FUTURE ECONOMY. INTERNATIONAL COMPETITIVENESS INCREASINGLY DEPENDS ON THE DEVELOPMENT OF A TELECOMMUNICATIONS INFRASTRUCTURE THAT IS COMPATIBLE WITH INTERNATIONAL STANDARDS. "

Specifically, TA should launch informational and grassroots campaigns in India, build an Indian Coalition for Accelerated Telecom Liberalization (ICATEL), seek the assistance of an Indian consultant, create a monitoring commission, and implement a legislative strategy and public relations campaign.

Informational Campaign

To build support for restructuring, Indian officials will need to convince the public of the benefits associated with telecommunication reforms. However, because 60 percent of India's electorate is from the rural, lower castes and only a handful of these voters have heard of telecommunication reform, the informational campaign should present some basic information about the current state of India's telecommunications infrastructure.

- India's teledensity is just 1.38 phones per 100 hundred inhabitants (one of the lowest teledensities in the world);
- 2.3 million people are on India's registered waiting list for phones (it takes two or more years to get a phone in India);
- India has between 200,000 and 300,000 middle-class consumers;
- 97 percent of India's 600,000 villages have no telephone at all;
- The demand for basic telephones lines in India is expected to reach 31 million by 2001, 42 million by the year 2005, and 64 million by 2006, up from the current

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total of 9 million, and this will require an investment of at least \$60 billion by 2006 (at current prices and import duty structures).

These facts should be compared to the development objectives laid out in India's New Telecom Policy of 1999:

- Make available telephone on demand by the year 2002, and sustain it thereafter so as to achieve a national teledensity of seven phones per 100 people by the year 2005 and 15 by the year 2010.
- Encourage the development of telecom infrastructure in rural areas by making rural service mandatory for all fixed service providers.
- Increase rural teledensity from the current level of 0.4 to 4 by the year 2010, and provide reliable transmission media in all rural areas.
- Achieve telecom coverage of all villages in the country and provide reliable media to all exchanges by the year 2002.
- Provide Internet access to all district headquarters by the year 2000.
- Provide high-speed data and multimedia capability (including ISDN) to all towns with a population greater than 200,000 by the year 2002.¹⁶

The informational campaign should further offer information concerning the benefits of liberalization, as well as the threats new technologies pose to India's current monopoly system.

1. Benefits:

- **Job-creation. Not job-loss.** India's fear that competition will trigger significant labor cuts is overblown. A World Bank study concluded that, between 1990 and 1994, employment in markets with varying degrees of competition increased by 20.76 percent. Employment in monopoly markets grew by only 3.13 percent.
- **Price, quality, opportunity.** Through competition, the price-quality mix of telecommunication services available to consumers will improve. Making telecommunications cheaper will help family relatives keep in touch, facilitate the spread of ideas, and help businesses grow.

¹⁶ From India's New Telecom Policy of 1999.

- **Gains to industry.** The software industry, which relies heavily on a sound telecommunications infrastructure, could reap immense rewards if competition is introduced in India. In addition, the stock market, airlines, railways, tourism and service segments of the economy would benefit from new telecommunication technologies.
- **Social benefits.** Telecommunication technologies could bring education to rural villages. They could also help slow India's "brain-drain" by strengthening India's information dependent industries and could facilitate technological innovation in India. In addition, medical applications associated with telecommunications can help to raise health indicators in India, and increased FDI inflows will enable the government to increase social spending on health, water supply and sanitation.

2. Macroeconomic improvement through increased FDI inflows

Estimates indicate that over \$60 billion worth of telecommunication investment will be needed to meet India's telecommunications goals for 2006. By allowing the private sector to fill this demand, the Indian government will free itself to focus on other needs like alleviating poverty, increasing literacy levels, reducing infant mortality rates and the like.

3. New technology and its threat to India's monopoly system

Technological innovation has made it possible for telecommunications competitors to easily circumvent the Indian government's monopoly controlled telecommunications infrastructure. Innovations such as callback services, Internet phone, low-earth-orbit satellites and global operators all can and will work to erode the market position of DoT, VSNL and MTNL, including their high profit margins. Convergence, which allows interoperability of different networks functioning on different platforms, will increasingly enable new telecommunication services to bypass the current system and will make that system less profitable and less valuable to potential private buyers.

4. Proliferation of Service Industries

Service industries offer well-paid employment opportunities for India's large university-educated population. Efficient and reliable telecommunications services will be essential to further development of these industries.

Grassroots Strategy

In an economy where 30 percent of the population lives in poverty (350 million people), a life time job, like those provided by monopoly providers, is precious. Liberalizing telecommunication companies in India would be perceived as eliminating jobs. Because over

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50 percent of DoT's employees are illiterate, the potential for retraining is limited. A strike by the employees of the monopoly providers could bring the country to a halt. And since the reform process might be interpreted as creating more losers than winners (especially public sector employees and subsidy recipients), a broad base of support will be required. This can be accomplished through a grassroots strategy coupled with an informational campaign.

Coalition Building - Indian Coalition for Accelerated Telecom Liberalization (ICATEL)

In order to build national support for accelerated telecommunications liberalization, it is important to involve all sectors of society. To do so, TA should consider creating the Indian Coalition for Accelerated Telecom Liberalization (ICATEL) that includes representatives from:

- Private companies;
- Industry associations;
- Influential/notable/famous people;
- Academia;
- Government ministries
- Local policy- makers;
- School Administrators;
- Judicial Branch;
- Lok Sabha;
- Rajya Sabha;
- The President;
- The Prime Minister;
- Indian Ministries

These interest groups should work together to pressure policy makers to make commitments to all of the BTA Reference Paper principles.

Ministers of railroad, mines, and other industries that depend on an efficient telecommunications system will need to speak out and convince others in the government that liberalization is absolutely necessary.

In addition to officials, ICATEL will need to target and enlist the support of leading industries (railway, airline, hospitality) that depend on advanced telecommunications in order to facilitate business development. Table 20 lists some key industries that are likely to lend their support to a push for expedited telecommunications liberalization.

ICATEL will also need to enlist the support of trade associations and chambers of commerce and industry (FICCI, ASSOCHAM, and CII). Table 20 also lists these associations and interest groups.

TA should also reach out to small business owners and service sector entrepreneurs who would benefit from a more efficient telecommunications infrastructure.

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Conferences

Conferences provide opportunities for leading international political and private industry figures to exchange ideas. TA sponsored conferences might help generate innovative solutions to telecommunication development obstacles.

Employ a National Consultant

All these strategies can be made more efficient by employing a national consultant. This consultant would know the intricacies of building a grassroots campaign strategy, would have many contacts in various organizations, and would be able to disseminate information through various channels more cheaply than TA could.

According to the U.S. State Department, the leading telecommunication consulting firm in India is:

Telecommunication Consultants India Limited (TCIL)
Chiranjiv Towers, III Floor
43 Nehru Place
New Delhi 110 019
Tel: 91-011-643-8514/643-2777
Fax: 91-011-643-5398

TCIL is highly regarded and offers expert knowledge of India's government, media, interest groups and telecommunications industry.

Creation of a Monitoring Commission

India should be encouraged to create a commission with authority to investigate the current status of regulatory reform in the telecommunications sector and to help ensure compliance with domestic and international obligations and commitments. This commission could also ensure that the privatization process and related decisions are fair and free of corruption and, once DoT is privatized, ensure that companies are competing fairly and that consumer interests are protected. The commission should be temporary; its mandate should expire three to five years after DoT is privatized and TRAI is fully empowered.

This commission will need:

- Committed political support from both houses, the Prime Minister and President;
- Agents that are reputable;
- The ability to make binding decisions;

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- The ability to arbitrate disputes between TRAI and DoT in the early stages of TRAI's evolution.

Legislative Strategy

The Hindu nationalist Bharatiya Janta Party (BJP), led by Prime Minister Atal Bihari Vajpayee, and the Congress, led by Sonia Gandhi, will need to be convinced of the need for telecommunications liberalization if TA's objectives are to be met. Although the NTP acknowledged the importance of the introduction of competition in the telecommunications sector in India, the reform agenda faces growing resistance from both the right and the left—especially since the Asian Financial Crisis. On the Left, labor unions continue to push for a slowdown of privatization, deregulation and liberalization in order to preserve jobs. On the Right, powerful Indian industries are feeling the effects of increased competition and are seeking protection through anti-takeover legislation, a slowdown of tariff reductions, and aggressive antidumping measures. Both the BJP and Congress have said that they favor protecting Indian businesses for at least five years.¹⁷

TA can help allay pressures of economic nationalism by:

- (1) Highlighting for legislators the benefits of competition (as stressed in the Informational Campaign section);
- (2) Highlighting recent positive economic trends;
- (3) Relying on Vajpayee's loyalty to WTO obligations;
- (4) Building consensus on the Left and Right that telecommunication liberalization is essential and beneficial for both sides;
- (5) Writing “dear colleague” letters to legislators to request support for reforms;
- (6) Arranging meetings with legislators to personally highlight the importance of reforms;

Public Relations Strategy – India

Media Objective: The media should be engaged in order to convey to our targeted audiences that additional WTO BTA commitments would be beneficial for India's economy and society. Our media objective is to inform as many people as possible about the benefits derived from competition in the telecommunication sector.

¹⁷ Bouton, Marshall M. "India's Problem is Not Politics," *Foreign Affairs*, Vol. 77, No. 3. May/June 1998, p.80-93. Bouton notes that economic nationalism in India may be regaining respectability.

Target Audiences: Legislative Branch, Executive Branch, Judicial Branch, Government agencies, interest groups and associations, international agencies as well as domestic and international media, as outlined in the legislative strategy.

Goals:

- (1) To raise awareness of India's National Telecommunication Policy of 1994, which aims at "improving India's competitiveness in the global market."
- (2) Denounce bad practices;
- (3) Monitor and ensure transparency in the reform process;
- (4) Demand representation from government officials.

Recommendations:

- (1) Coordinate with government agencies, interest groups and international agencies to organize a joint press conference and/or roundtable meeting to discuss consequences of retarded liberalization of telecommunication markets;
- (2) Organize a press conference to highlight the messages laid out in the Informational Campaign;
- (3) Send out press releases and media advisories concerning ICATEL's efforts;
- (4) Prepare a list of possible questions and answers.

Articles, advertisements, op-ed pieces and other informational campaigns should be placed in various media in India. Table 25 identifies some key media sources that important figures associated with telecommunication policy might read.

Table 25 - Indian Media

Indian Media Sources
The Hindu
Asia Today Magazine International
Asia TV Network News
Business Today (India)
Hindustan Times
India Globe
Computers and Communications
Telematics India
Outlook
Press Trust of India
United News of India

Source: *News Media Yellow Book*

INTERNATIONAL STRATEGY

International Coalition

TA will need to form ties with telecommunication companies and governments located in other countries. Once the India strategy is underway, TA will need to utilize the international community to place added pressure on India to adopt addition WTO BTA commitments.

Table 26- International Interest Groups and Organizations

Public Interest Groups	Private Interest Groups	Inter-Governmental Agencies
International Institute for Communication and Development	Deutsche Telecom A.G. (Germany)	International Telecommunications Union (ITU)
International Association of Broadcasting	PTT Guandong (China)	World Trade Organization (WTO)
Committee on Space Research	Bell Canada	Inter-American Development Bank
European Public Telecommunications Operators' Association	Itochu (Japan)	World Bank Group
International Air Transportation Association	Nippon Telephone & Telegraph (Japan)	Organization for Economic Cooperation and Development (OECD)
International Telecommunications Users Group	Shinawatra (Thailand)	United Nations Conference on Trade and Development (UNCTAD)
International Organization for Standardization	Telestra Corporation Ltd. (Australia)	International Mobile Satellite Organization (INMARSAT)
International Union of Railways	Bezeq (Israel)	Inter-American Telecommunications Conference
	Moscow Telecom	Asia-Pacific Telecommunity
		International Telecommunications Satellite Organization (INTELSAT)
		European Space Agency
		United Nations Industrial Development Organization (UNIDO)

The international strategy will parallel the media and negotiation strategies developed for the U.S. and India. To gain international support, it will be important for TA to be able to explain the problem concisely, offer solutions to the problem, and assure governments and firms that by supporting TA's efforts, they will be acting in their own best interest.¹⁸

¹⁸ For additional international targets, please refer to Table 10 and Table 22.

Exhibits

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Exhibit 1 – Sample News Release
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NEWS RELEASE

FOR IMMEDIATE RELEASE

CONTACT:

(202) 555-1234 or

(202) 555-5599 after 5 p.m.

U.S. TELECOMMUNICATIONS INDUSTRY TO LOSE BILLIONS OF DOLLARS - THOUSANDS OF JOBS LOST

DATE:

TIME:

PLACE:

WHY: TO DISCUSS WHAT THE U.S. TELECOMMUNICATIONS INDUSTRY AND GOVERNMENT ARE DOING TO ADDRESS THE NEGATIVE REPERCUSSIONS OF INDIA'S SLOW PACE OF TELECOMMUNICATION LIBERALIZATION.

WHO: PRESIDENTS OF LEADING TELECOMMUNICATION INDUSTRY ASSOCIATIONS, FCC CHAIRMAN, USTR'S TELECOMMUNICATIONS POLICY ADVISOR, AND COMMISSIONERS FROM NTIA.

As many sectors of the U.S. telecommunications market approach maturity, U.S. companies are increasingly looking to foreign market opportunities to expand their businesses. India's telecommunications market is already worth close to \$6 billion in 1998; it is projected to be worth \$60 billion by 2006.

Future growth of the U.S. telecommunications industry depends on the ability of U.S. companies to enter lucrative markets such as India's. "U.S. companies are the most competitive telecommunications providers in the world; they are in the best position to compete and win," says the president of the Telecommunications Alliance.

If the Indian telecommunications market can be forced to live up to its commitments under the WTO Basic Telecommunication Agreement and to expedite its liberalization process, experts project that one million U.S. jobs would be created and telecommunication costs would be reduced by 80 percent.

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Exhibit 2 – Sample Press Statement

On a global basis, telecommunications is already a \$725 billion industry. But the recently negotiated WTO Basic Telecommunication Agreement (BTA) has the potential to double or even triple the industry's business over the next ten years, *if all countries make significant BTA commitments.*

U.S. companies are the most competitive telecommunications providers in the world. They are best positioned to compete and win under the BTA. According to the Economic Strategy Institute, the Agreement will lead to the creation of approximately one million U.S. jobs in the next ten years.

The BTA will also save billions of dollars for American consumers and companies. Executive branch agencies and the FCC estimate that the average cost of international phone calls will drop by 80 percent – from \$1 per minute on average to less than 20 cents over the next several years.

For these reasons, U.S. companies must be able to enter foreign telecommunications markets, especially large, untapped markets like India's, which represents a potential of close to \$6 billion in 1998 and is expected to be worth over \$60 billion by 2006. U.S. telecommunication companies *must* be able to compete in this market if their long term goals are to be met and jobs and savings are to be passed on to U.S. citizens.

So far, U.S. telecommunications products and services have faced significant obstacles to entry into the Indian market. Currently, non-transparent decision making, red tape and ambiguous policies make entry virtually impossible.

India has taken obligations to expedite liberalization of its telecommunications market, but it has done little to implement these obligations. The United States must continue its efforts to further expand BTA coverage. Doing so will create jobs, increase efficiency, lower costs, bring new technology to consumers and businesses in India and help India's development process.

India can be the shining star of telecommunications development if it allows U.S. companies to aid in the development of India's telecommunication infrastructure.

Questions and Answers

1. What is the WTO Basic Telecommunications Agreement all about?

Traditionally, telecommunications services have been provided by national monopolies. For the past three years, the United States and other WTO member states negotiated in Geneva under the auspices of the World Trade Organization (WTO) to open up markets for basic telecommunications services, including local, long distance, and international voice and data transmission services. On February 15, 1997, 69 countries including the United States, reached agreement on the liberalization of these telecom services.¹⁹

2. What is the significance of this agreement?

This is the first multilateral telecommunications trade agreement ever reached. The 69 countries that made commitments comprise the world's major telecom service markets and account for more than 90 percent of world telecom revenues. These markets are huge and growing, with 1997 revenues expected to exceed \$725 billion. The BTA is particularly important because it covers the types of basic (voice) services that account for 85 to 90 percent of all telecom service revenues.

3. What are the major aspects and achievements of this agreement?

The agreement covers three general areas. First, market access and national treatment for suppliers of telecommunications services. For example, 52 countries guaranteed access to their markets for international services and facilities. Five more countries guaranteed access for selected, but not all, international services. Fifty-six countries agreed to allow foreign access to all or selected satellite services.

Second, the agreement allows foreign investment in telecommunications services and facilities. Under the terms of this agreement, 44 countries permitted full foreign ownership or control of all telecom services and facilities, while 12 countries allowed foreign ownership or control of certain telecom services. Nine other countries guaranteed some degree of foreign ownership in their telecom services market.

Third, signatories to the agreement adopted procompetitive regulatory principles, which help ensure that market access is fully realizable and that firms will be able to compete in markets that heretofore have been closed to competition. One of the most significant results of the negotiations was that 55 countries adopted a common

¹⁹ Questions 1-8 are from <http://infoserv2.ita.doc.gov/ot/home.nsf> (ITA, Office of Telecommunications)

text on pro-competitive regulatory principles, four countries agreed to adopt such principles in the future, and six others adopted some of the regulatory principles.

4. Did all countries agree to the same terms?

No, each country submitted an "offer" (now a "schedule" in the final agreement), a document in which it listed specific commitments it was willing to undertake. In most cases, the United States achieved balanced reciprocal commitments from its major trading partners. The 15 member states of the European Community, Japan, Australia and many of the United States' Latin American trading partners all agreed to open their telecom markets in 1998 or soon thereafter. Many developing countries guaranteed some level of foreign investment, set dates to phase-in liberalization of their markets, and agreed to all or most of the regulatory principles. Such commitments represent a significant improvement in the current state of telecom liberalization efforts in many countries.

5. Will the United States have to do anything to conform to the terms of the agreement?

Yes. The Federal Communications Commission (FCC) has said it will review and make any necessary changes to its existing procedures to bring them in line with the United States' BTA commitments. In addition, the FCC has indicated that it will establish a policy on international benchmark accounting rates this year in order to prevent competition in the U.S. telecom marketplace from being distorted.

6. Will the agreement have a positive effect on U.S. exports and jobs?

Yes, although given the dynamism of the global market and the differing pace of liberalization around the world, it is difficult to come up with precise figures. It is clear that, as a result of this agreement, many foreign firms will establish new telecommunications operations or make investments in the United States to further the growth of existing companies. This will lead to new jobs in this country. The agreement is expected to give a major boost to U.S. manufacturers of telecommunications equipment, as new telecom networks are established in many countries. This, in turn, will stimulate the manufacture and export of related information technology products.

7. What is the position of U.S. industry?

Leading U.S. telecom companies have long supported a multilateral agreement that would open up foreign markets in telecommunications services. Their question was whether such an agreement could be achieved. Our industry played an important role in identifying market access problems in key countries. U.S. industry interest in the

negotiations was also demonstrated by the fact that more than 30 firms sent representatives to Geneva during the final week of the talks. Most of these firms, along with telecommunications trade associations and user groups, issued press releases welcoming the successful conclusion of the WTO agreement. Many industry representatives said they were "wildly enthusiastic" about the deal. Industry officials also are expected to testify before Congress and explain their support of the agreement.

8. Why is this agreement good for the United States?

Several different groups stand to benefit from the implementation of this agreement: U.S. telecom service providers, U.S. telecom equipment manufacturers, corporate users of telecommunications services, and individual consumers.

- Telecom service providers. U.S. telecom service firms are recognized world leaders in the development and marketing of telecommunications services in competitive environments. Foreign nations are turning to U.S. firms for assistance in modernizing and expanding their telecom infrastructures and providing improved services. Thus, U.S. companies are poised to take advantage of expanding commercial opportunities as foreign telecom markets, with a current annual value of about \$450 billion, open to competition and foreign investment.
- The regulatory principles incorporated in the WTO Agreement will give added protections and guarantees to U.S. telecom service providers operating in foreign markets. U.S. cellular joint venture firms currently provide cellular services in 42 of the countries that have agreed to adopt the regulatory principles. These countries are key cellular markets, containing 90 percent of the (non-U.S.) cellular subscribers in WTO member states. The established national provider of telecom services will assure U.S. firms in these markets that an independent regulatory authority will supervise fair terms and costs for interconnection and set policies to protect against cross-subsidization.
- Telecom equipment manufacturers. As foreign countries encourage private investment and allow the construction of new telecom networks, U.S. telecom equipment suppliers will see the demand for their products increase. The annual telecom equipment markets of the 69 signatories to the agreement total \$160 billion. Fifty of those countries will allow complete domestic facilities competition, so the value of their equipment markets will increase considerably. The total U.S. telecom equipment exports in 1996 were a little more than \$16 billion, and there is tremendous scope for expanding these exports.

- U.S. corporate users of telecommunications. U.S. business is a heavy user of telecommunications services, both here and abroad. Introducing or expanding competition in telecommunications will improve the quality and types of telecom services available, as well as make them significantly cheaper. High quality, low cost telecommunications enables businesses to operate more economically and efficiently. As competition spreads around the world over the next decade, business users should see dramatic reductions in the cost of telecom services and equally dramatic improvements in the telecom services available to them.
- U.S. consumers. The average price of a one-minute domestic call in the United States is about 15 cents. The average price of a one-minute international call from the United States is more than 90 cents. With the agreement's promotion of competition in international telecom services, and with efforts by the FCC to bring down the above-cost payments U.S. telecom firms currently make to foreign monopolies, international calling rates should decline substantially. U.S. consumers will benefit directly. At home, as foreign firms enter the market and make investments to provide local and long distance services, increased competition should also help keep rates affordable and reasonable.

9. Since India has already tabled commitments, how can current efforts affect bilateral relations with India positively?

Numerous studies by multilateral agencies such as the International Telecommunication Union and the World Bank demonstrate empirically how liberalization creates jobs, spurs technological innovation, and stimulates economic growth.

10. Is the United States prepared to make any concessions to India with regards to the Multi-Fiber Agreement?

The issue of upholding commitments taken in the WTO Basic Telecommunication Agreement is not an issue of trade-offs. Therefore, the U.S. will not make any additional concessions in other areas so that India will live up to its own commitments.

11. How are economic sanctions due to India's recent detonation of nuclear bombs affecting the ability of U.S. telecommunications firms to invest in India?

Sanctions apply only to lending to the Indian government, not to corporate entities.²⁰ Furthermore, projects that have already been approved or are in the pipeline to be approved will not be affected.

12. How will competition positively effect India as a whole?

The effects of instilling competition in any industry sector are well documented in academic literature. Specific benefits for the telecommunication sector include:

- reduced costs, which translate into increased profits for business users and the possibility of achieving universal service;
- increased supply in services, which in turn will lead to reduced costs and increased demand;
- increased foreign exchange from FDI;
- a more competitive services and manufacturing sector;
- growth of small- to medium-sized businesses and the services sector;
- enhanced access to knowledge for social applications like agriculture, education and medicine; and
- more reliable transportation, banking and business services.

²⁰ Grant, Peter. "The Attraction of Telecom" *Global Finance*, September 1998, New York.

Exhibit 4 – Sample Fact Sheet

Fact Sheet: The Indian Telecommunications Market

The Indian telecommunications market offers vast potential for U.S. telecommunication firms, but only if India further liberalizes its markets. U.S. policymakers should take action to encourage India to open its markets to foreign competition.

- ✓ The Indian market for telecommunication products and services was \$6 billion in 1999 and is expected to reach \$60 billion by 2006.
- ✓ Indians have great confidence and interest in purchasing U.S. telecommunication products and technologies.
- ✓ The demand for phone lines in India is expected to increase from the current total of 9 million to over 64 million by 2006.
- ✓ India has between 200 and 300 million middle-class consumers.
- ✓ India has a registered waiting list for phone lines of 2.3 million.
- ✓ 97 percent of India's 600,000 villages have no telephone line at all.
- ✓ India's teledensity is just 1.38 phones per 100 inhabitants, one of the lowest teledensities in the world.
- ✓ The U.S. telecommunications industry currently employs over 2 million citizens.
- ✓ According to the Economic strategy Institute, the WTO Basic Telecommunication Agreement can lead to the creation of approximately one million U.S. telecommunications jobs in the next ten years.

**Exhibit 5 – Sample India Congressional
Testimony****PRESIDENT
INDIAN COALITION FOR ACCELERATED TELECOM LIBERALIZATION
(ICATL)****Testimony before the Subcommittee on Telecommunications
Rayja Sabah****Hearing on Competition in the Indian Telecommunication Market****April 25, 1999**

Good afternoon, I am President of the Indian Coalition for Accelerated Telecom Liberalization (ICATL). I appreciate this opportunity to highlight the importance of telecommunications liberalization in India.

The Government of India is to be commended for formally embarking upon the development of a comprehensive and forward-looking telecommunications policy for India. The National Telecom Policy of 1994 (NTP 94) set the tone for government acknowledgement that an efficient telecommunications network is vital for the health of India's economy. The New Telecommunications Policy of 1999 (NTP 99), announced April 1, 1999, builds on the goals set-forth in NTP 94.

NTP 94 and NTP 99 are important first steps towards liberalization. However, more needs to be done in order to assure that the goals set-forth in each policy are realized. Indeed, the current under-supply of telephony in India threatens to limit India's future economic potential. Current estimates show that India will require over \$60 billion in telecommunications investment by 2006. Over 2.3 million citizens are already on India's registered waiting list for phones, and 97 percent of India's 600,000 villages have no telephone line at all.

India needs to make binding commitments to all the principles set-forth in the WTO Basic Telecom Agreement Reference Paper. It also needs to expedite the introduction of competition into its telecom market.

The importance of telecommunications to India's economy cannot be overestimated. Look at the industrialized countries. Their efficient telecommunication networks enable businesses to function efficiently, help medicine to heal more people, and help school children to learn.

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Efficient telecommunications systems also support the production of cost competitive exports.

These benefits *can* be realized in India. An improved telecommunications infrastructure would give Indian health care professionals better access to medical applications and information—which in turn can help to raise health indicators. Improved telecommunications systems could also bring education to rural villages. Furthermore, by allowing the private sector to develop the telecommunications network, the Indian government can continue to focus its attention on other pressing social issues. The increased FDI inflows associated with a liberal telecom policy will also help enable the government to increase social spending for health care, water supply and sanitation, among other things.

A common fear associated with committing to the remaining principles set forth in the WTO BTA Reference Paper is job loss. The truth is that jobs will not be lost but in fact created. The introduction of competition will require mobilization of labor to meet India's current demand for telephones. The World Bank concluded that between 1990 and 1994, employment in markets with varying degrees of competition increased by 21 percent, whereas in monopoly markets, employment grew by only three percent.

Moreover, an improved telecommunications system will facilitate the growth of internationally competitive service industries—industries that will employ India's growing population of university degree holders. By increasing work opportunities for degree holders, university enrollment is likely to increase, and India's "brain-drain" is likely to slow.

The software industry already transmits code from Bangalore to the United States. A better telecommunications infrastructure would make this industry still more competitive by reducing its data transmission costs and increasing data security and transmission speeds. Tourism, banking, and air transportation are just a few examples of other industries that rely on efficient telecommunications services and would benefit from further telecommunications liberalization. The stock market would benefit too.

End-users require increasingly divergent telecommunication service applications to meet their needs. Privacy is paramount for some. Others need the ability to rapidly transfer large volumes of data. Still others simply need low cost telephone services. Because no single service provider can meet all these needs on a cost-competitive basis, competition involving multiple service suppliers is desirable.

Competition is also desirable because technological advancements are already enabling service providers to bypass the Indian government's monopoly telecommunications provider. These innovations include callback services, Internet phone, low-earth-orbit satellites and global operators, all of which threaten to erode the market position of DoT, VSNL and MTNL and their high profit margins. Convergence, which allows interoperability

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of different networks functioning on different platforms, will also enable new telecommunication services to bypass the incumbent operators, further eroding the value of the state's monopoly providers.

The only way for India to reach its telecommunication development objectives in a timely fashion is to signal to the international community that it is serious about reforms. There are few better ways to do this than to make additional commitments to the WTO BTA Reference Paper.

In order for India to reap the benefits associated with telecommunication liberalization, ICATL recommends that India:

- Make binding commitments to implement all the principles set-forth in the WTO BTA Reference Paper;
- Privatize the Department of Telecommunications;
- Create a coherent telecommunication policy;
- Empower the Telecommunications Regulatory Authority of India; and
- Work with U.S. officials to develop environments that minimize investor risk, promote best practice in reform strategies, and address systemic factors that affect telecommunications investments.

Emphasizing the importance of competition in India's telecommunication sector is critical for the entire society. The benefits of competition far outweigh any risks, and India can guard against any risk through using the assistance of multilateral institutions. India cannot afford to wait any longer to begin enjoying lower costs, increased efficiency, and the numerous other benefits only a deregulated and competitive telecommunications sector can provide.

Thank you for your time today and I would like to ask again for India's commitment to telecommunication liberalization by making binding all principles set-forth in the WTO BTA Reference Paper.

STATEMENT FROM THE U.S. TELECOMMUNICATIONS INDUSTRY**Testimony before the Subcommittee of Trade
of the House Committee on Ways and Means****Hearing on Competition in the Indian Telecommunication Market**

Mr. Chairman, Members of the Subcommittee, I represent America's largest telecommunications trade association. I appreciate this opportunity to inform the Subcommittee of the numerous legal, commercial and political factors in India that work to impede U.S. firms' ability to participate in major telecommunications projects in India.

With a population fast approaching one billion, India's demand for telecommunications products and services is huge. Current estimates show that India will require over \$60 billion in investment by 2006. American firms, which are among the world's most competitive and experienced suppliers, want to be able to compete in this lucrative market.

According to the Economic Strategy Institute, the telecommunications industry in the United States employs over 2 million citizens, contributes approximately \$8 billion in annual tax revenue, and created over \$450 billion in economic activity last year alone. With the World Trade Organization's Basic Telecommunications Agreement, we estimate that approximately one million more jobs within the telecommunications sector could be created over the next ten years—*if India makes additional WTO BTA commitments.*

The Agreement will also enable American consumers to save billions of dollars. Executive branch agencies and the FCC estimate that the average cost of international phone calls will drop by 80 percent, from \$1 per minute on average to less than 20 cents per minute over the next several years—again, *if India makes additional WTO BTA commitments.*

In its offer to the WTO, India refrained from signing additional commitments on regulatory principles. As a result, U.S. telecommunications companies are questioning the sincerity of India's commitment to liberalization. Current challenges for U.S. providers of telecommunications products and services in India include:

- changing political climates;
- uncertain and evolving regulatory environments;
- discriminatory procurement policies;
- a lack of transparency;
- corruption and bribery;
- the government's failure to comply with negotiated trade agreements;

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- non-tariff barriers such as burdensome licensing and approval procedures;
- local content requirements; and
- standards and service-related obstacles.

Each of these challenges severely constrains the ability of U.S. telecommunications firms to conduct business in India.

U.S. officials can encourage governments to develop environments that minimize investor risk. U.S. officials need to work with their foreign counterparts to promote best practices in reform strategies and to address systemic factors that affect investment in telecommunication sectors.

I recognize the contribution of agencies such as the Department of Commerce, Export-Import Bank, Overseas Private Investment Corporation and the U.S. Trade and Development Agency in the well-known and widely used programs that assist U.S. telecommunication companies that do business in India. However, these agencies need support from the United States Trade Representative's Office.

I encourage Congress to authorize USTR to adopt an aggressive, incentive-based policy to open foreign markets to U.S. telecommunication equipment and services. Continual bilateral negotiations with India aimed at getting India to make additional BTA commitments should be a top priority for both the White House and USTR.

The United States cannot afford to lose the nearly one million American jobs that expedited liberalization of the Indian market can help create. India can also ill afford to lose the millions of Indian jobs that expedited liberalization can help create.

The Economic Strategy Institute estimates that if U.S. firms were able to capture 25 percent of non-U.S. telecommunications services markets, U.S. firm revenue would increase by \$72 billion, and approximately \$3.61 billion in net income would be repatriated to the United States. As foreign markets expand, the repatriation effect will grow significantly. If U.S. firms continue to maintain this share of foreign telecommunications services markets until the year 2005, U.S. firms would accumulate over \$874 billion in revenues.

Without appropriate support, U.S. firms are likely to lose market share to competition by firms from countries such as France, Germany, Sweden, Japan, Canada, Korea, Singapore, Finland, Australia and Hong Kong. This will translate into significant economic losses for U.S. telecommunications firms, losses in tax revenue to the U.S. government, and ultimately, the potential loss of thousands of American jobs.

We need immediate action to remedy the continuous problems U.S. firms face while trying to conduct business in India. We ask for your support. Thank you for your time.

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**Exhibit 6 – Sample Op-ed
(India)****Op-ed**

Although India did make some market opening commitments in the World Trade Organization's Basic Telecommunication Agreement, it continues to stifle foreign direct investment in its telecommunications sector—this despite the fact that India sorely needs investment to bring the country's telecommunication network up to par with international standards.

Liberalization, deregulation, privatization and competition are all words that need to be seen in a positive light. They enable prices to tumble, innovation to accelerate, and development of information infrastructures to take off. Telecommunications will be the backbone of India's future economy and the international competitiveness of our economy increasingly depends on a telecommunications infrastructure that meets international standards.

Furthermore, if India is to meet the objectives set-forth in the New Telecom Policy of 1999, India must be able to signal its commitment to liberalization and to the establishment of a pro-competitive regulatory environment. Only then will India be in a position to attract the capital flows required for the development of its telecommunications infrastructure. There is no better way to do this than to implement the commitments tabled at the WTO and to commit to all the principles set-forth in the Basic Telecommunication Agreement's Reference Paper.

What good was signing the WTO Agreement if foreign companies are hesitant to invest in India?

**Exhibit 6 – Sample Op-ed
(U.S.)****Op-ed**

The successful conclusion of the World Trade Organization's negotiations on Basic Telecommunications signaled to the United States that the world's \$725 billion telecommunications market would soon be liberalized.

Nonetheless, India continues to maintain some of the most restrictive telecommunication policies in the world. Foreign ownership is severely limited and competition is restricted to a handful of wireless and value-added services. Monopolies retain exclusive control of the infrastructure necessary for competition.

Monopolies, the established players in the Indian market, derive large revenues from their privileged market position. But India's consumers lose out. If India doesn't allow competition in its telecommunications market, it is unlikely that the country will be able to establish an up-to-date telecommunications infrastructure needed to support the information intensive industries that are expected to define the 21st century.

Market liberalization is difficult to manage. Indeed, the U.S. Congress faced significant challenges in opening the U.S. market. However, this process is well worth it. Liberalization enables prices to tumble, innovation to accelerate, and the development of information infrastructures to take off.

To truly reap the benefits of the information age, India must not only dedicate itself to implementing the commitments it tabled at the WTO, it must also make binding all principles set forth in the Basic Telecommunication Agreement's Reference Paper. It would be wise for India to take additional commitments, similar to those taken by 59 other countries, to expedite liberalization of its telecommunication market.

Exhibit 7 – Sample Letter to the Editor (India)**Letter to the Editor**

Sir, in response to the article in your March 4, 1999 issue that praised the successes of the WTO Basic Telecommunications Agreement (WTO BTA), I would like to point out that the picture isn't as rosy as you painted.

Due to India's minimal BTA commitments, India is now internationally recognized as a country that is not dedicated to telecommunication liberalization. Fifty-nine of the world's largest and most successful economies have committed to all the principles stated in the Basic Telecom Agreement's Reference Paper. They seem to understand the importance of telecommunications competition, privatization, deregulation, and liberalization.

Although India recognized the importance of telecommunications liberalization in its New Telecom Policy of 1999 (NTP99), many of the objectives listed in NTP99 will never be realized due to India's minimal WTO BTA commitments. India needs to commit to all the principles set forth in the BTA Reference Paper in order to signal to the international community that it is serious about telecommunications liberalization.

Sincerely,

President
ICATEL

Exhibit 7 – Sample Letter to the Editor (U.S.)**Letter to the Editor**

Sir, in response to the article in your March 4, 1999 issue that praised the successes of the WTO Basic Telecommunications Agreement, I would like to point out that the picture isn't as rosy as you painted.

This Agreement, it was hoped, would liberalize the world's \$725 billion telecommunications market. For this reason the United States took commitments that offered foreign firms unfettered access to compete in its markets on an equal footing with national companies. Despite these commitments, India maintains regulations that restrict U.S. participation in their markets. These barriers have substantial negative consequences for U.S. telecommunication firms and the U.S. economy.

If U.S. firms were able to capture 25 percent of non-U.S. telecommunications services markets, it is estimated that their revenue would increase by \$72 billion, and approximately \$3.61 billion in net income would be repatriated to the United States. If U.S. firms continue to maintain this share of foreign telecommunications services markets until the year 2005, U.S. firms would accumulate over \$874 billion in revenues.

For these reasons, the United States cannot tolerate minimal commitments from India, a country that will need over \$60 billion in investment to meet its own goals by the year 2005.

The United States must stand firm and not only ensure that commitments made at the WTO are enforced, but also demonstrate to India the benefits of liberalization. We cannot wait and let opportunity slip by. Let our elected officials know that if the United States is to live up to its commitments, so must India!

Sincerely,

President
Telecommunications Alliance

Exhibit 8 – Sample Letter to Member of Congress

Dear Congressional Colleague,

U.S. telecommunication firms that export their products and services internationally face extreme difficulties in entering the Indian marketplace. With the completion of the WTO's Basic Telecommunication Agreement, U.S. telecommunication firms anticipated a market that would offer new opportunities for growth, which the already saturated U.S. market can not offer.

But the challenges U.S. telecommunication firms face in cutting through the Indian government's red-tape and non-transparent policies are costing millions of dollars in wasted effort. If U.S. firms cannot overcome these challenges, American jobs could be lost.

The U.S. telecommunication industry currently employs over two million citizens. It is expected that through opportunities that exist in emerging markets such as India, an additional one million jobs can be created over the next ten years. In addition, expanding into overseas markets can help to reduce the average cost of phone calls from over \$1 per minute to less than \$.20 per minute over the next several years.

The U.S. has aligned its domestic policies with the principles stated in the WTO BTA Reference Paper. So too should other countries. We cannot afford to wait until India slowly aligns its policies with its minimal BTA commitments.

For these reasons, we ask you to raise the issue in appropriate fora. This way we can ensure that your constituents are not displaced from their jobs in the telecommunication sector. We will also be able to create new export opportunities for firms in your district, which will not only bring increased revenue to your constituents, but will also lead to increased job opportunity.

We look forward to your support in this matter. Should you have any additional questions, please don't hesitate to contact me.

Sincerely,

**Exhibit 9 – Sample Letter to U.S.
Telecommunication Company Executives**

Dear Telecommunication Company President:

The Telecommunications Alliance is developing a strategy to address your concerns about market entry into India. We would like you to participate in a Roundtable discussion on March 21, 1999 with other telecommunication industry leaders from the United States as well as the international community.

Although American telecommunication firms are among the world's most competitive and experienced suppliers, numerous legal, financial and political factors in India serve to impede our participation in major development and enhancement projects.

Our Telecommunications Roundtable will address the following issues related to the Indian market:

- Uncertain and evolving regulatory environments;
- Discriminatory procurement policies;
- A lack of transparency;
- Corruption and bribery;
- A lack of compliance with negotiated trade agreements;
- Non-tariff barriers such as burdensome licensing and approval procedures;
- Local content requirements; and
- Standards and service-related obstacles.

It is our hope that through discussion, we will be able to develop innovative solutions to the current problems. The results of the discussion will be incorporated into a report that subsequently will be forwarded to U.S. officials who can encourage foreign governments to develop less risky investment environments. U.S. officials need to work with their foreign counterparts to promote best practices in reform strategies and to address systemic factors that affect telecommunications investment in India.

Your participation is strongly encouraged. Please complete the attached registration form and mail it to us in Washington D.C. Should you have any further questions, please don't hesitate to call.

Sincerely,

**Exhibit 10 - Letter to Foreign Telecommunication
Company Executives and Government Officials**

Dear Telecommunication Company President:

The Telecommunications Industry Association would like to request your presence at a Roundtable discussion on March 21, 1999. Other participants will include telecommunication industry leaders from the United States as well as the international community. The purpose of this Roundtable will be to address the numerous legal, financial and political factors in India that serve to impede foreign firms' participation in major development and enhancement projects within India's telecommunication sector.

Our Telecommunications Roundtable will address the following issues concerning the Indian market:

- uncertainty in evolving regulatory environments;
- discriminatory procurement policies;
- a lack of transparency;
- corruption and bribery;
- a lack of compliance with negotiated trade agreements;
- non-tariff barriers such as burdensome licensing and approval procedures;
- local content requirements; and
- standards and service-related obstacles.

It is our hope that through discussion, we will be able to develop innovative solutions to the current problem.

Your participation is strongly encouraged. Please complete the attached registration form and mail it to us in Washington D.C. Should you have any further questions, please don't hesitate to call.

Sincerely,

**Exhibit 11 – Sample White
Paper**

Diffusing India's Fears of Telecommunication Liberalization

Sample White Paper

(For Distribution in India)

This paper was researched and written to fulfill the M.A. project requirement for completing the Monterey Institute of International Studies' Master of Arts in Commercial Diplomacy. It was not commissioned by any government or other organization. The views and analysis presented are those of the student alone. For more information about the Commercial Diplomacy program and the M.A. project requirement, please visit www.commercialdiplomacy.org.

India has everything to gain from facilitating the entry of competitive private sector companies into its telecommunications market. With privatization, telecommunications services would likely drop in price, become more reliable, and become better able to meet the diverse needs of end-users. By improving local firms' access to efficient telecommunication providers, India can greatly enhance its businesses' competitiveness – including their ability to participate in the dynamic international markets for information-intensive products and services. Moreover, by facilitating the entry of foreign companies into the market, India would gain valuable investment inflows.

India's participation in the WTO's Agreement on Basic Telecommunication Services as well as India's forward-looking telecommunications policies set the stage for a new era of telecommunications development in India. The National Telecom Policy of 1994 (NTP 94) set the tone for government acknowledgement that an efficient telecommunications network is vital for the health of India's economy. The New Telecommunications Policy of 1999 (NTP 99), announced April 1, 1999, builds upon the goals set-forth in NTP 94. Although NTP 94 and NTP 99 are important first steps towards liberalization, more needs to be done if the goals set-forth in each policy are to be realized.

The Indian government's monopoly on telecommunications services has failed to develop cheap, reliable, and state-of-the-art communications systems. New technological developments will soon render this monopoly system largely obsolete. India should waste no time in adopting a pro-competitive regulatory environment and making binding commitments to all principles set forth in the WTO Reference Paper.

The Shortcomings of India's Telecommunications Monopoly

Advocates of India's monopoly telecommunications system argue that privatization would lead to wasteful duplications of facilities, fail to provide universal service, result only in cream skimming,²¹ and lead to significant job loss. These are outdated concerns that fail to consider the benefits of modern technological advances.

1. Wasteful Duplication of Facilities

Those who believe that privatization will lead to a "wasteful duplication" of services assume that the provision of telecommunications services is a natural monopoly. They argue that the high overhead costs associated with establishment of a

²¹ Smith, Peter. *"Subscribing to Monopoly: The Telecom monopolist's Lexicon Revisited."* Note No. 53, The World Bank Group, September, 1995.

telecommunications network means that one supplier can produce a range of telecommunication services at lower cost than multiple suppliers can. Consequently, monopoly advocates in India argue that state telephone companies should maintain control of the country's telecommunications system.

Today, this argument is simply no longer true:

- **Unmet Demand.** Current government providers of telecommunication services in India are unable to meet current demand, which signals that the established system is not working as intended.
- **Production Inefficiencies.** The absence of competition leads to costly inefficiencies. (It costs US\$ 4,000 to install a telephone line in India but only about US\$ 1,000 to US\$ 1,500 in other developing countries.)
- **Technological Advances.** The "wasteful duplication" argument assumes that economies of scale and scope can be "harvested" only by a single supplier. Although once true, advances in technology now enable providers to supply telephony through various mediums (mobile, cable, "right-of-way" networks, low earth orbiting satellites, etc.). Technological advances also enable convergence of these mediums.

2. Universal Service & Cross-Subsidies

Universal service is widely accepted as a legitimate public policy objective. However, depending on prices, household income, and consumption preferences, many households choose *not* to subscribe to telephone service, and therefore, it is not profitable to provide service to particularly poor market segments or regions, particularly in developing countries. With this in mind, India argues that, to achieve universal service, cross-subsidies are required, and a monopoly is needed to generate super-normal profits to fund this subsidization. Cross-subsidies normally flow from international and national long-distance service to local service, from urban to rural subscribers, and from business to residential service.

There are several problems with this argument:

- **Priorities.** Universal service, if it means a telephone for every household, is not necessarily the right goal for India where per capita income is low and capital scarce. The country has higher priorities.
- **Competition can lead to universal service.** Subsidization is not necessarily the best route to universal service. Since India is suffering from chronic unmet demand for telephone service, the key problem is inadequate supply (inadequate investment and inefficient investment and operations), not inadequate demand.

While this demand may not result in universal service in the short run, competition in the industry will spur innovation and keep downward pressure on costs and prices, and these price decreases can be at least as important as subsidies in improving the affordability of telephone service. Competition will also benefit Indian household subscribers who have lost telephone service because they cannot afford to pay the high-priced long-distance portion of their bill (Canadian Minister of Supply and Service, 1986).

- **Market Segment Satisfaction.** Assumptions about the uneconomic characteristics of some market segments may be wrong. What is uneconomic for one segment can be profitable for others.

3. Cream Skimming/Cherry-Picking

Indian officials have also argued that new entrants in their telecommunications markets are likely to focus on the most profitable parts of the market – typically international and national long-distance and local business telephone services – or on the largest customers in these market segments.

Cream skimming should be viewed not as a negative and unwholesome activity, but as normal market behavior. “Taking the cream away,” helps correct price distortions and enhance incentives for cost reductions.

4. Job Loss

Many Indians fear that liberalization of their telecommunications system will trigger significant labor cuts. However, a comparative analysis of twenty-six countries in Asia and Latin America shows that between 1990 and 1994, employment in markets with varying degrees of competition increased by 20.76 percent while employment in monopoly markets only grew by 3.13 percent.²² In developing countries, where teledensity can be as low 1.3 telephones per person (as is the case in India), network expansion creates a demand for labor that far outweighs workforce reductions.

India’s Need for New Telecommunications Policies

The rapid expansion of global services and technological advances places serious pressure on India to create new policies to accelerate telecommunication liberalization. Sooner or later, on their own initiative or forced by technological innovation, India will have to compete with large public operators based in their own domestic market as well as foreign markets.

²² UNCTAD, *World Development Report*.

1. Domestic Competition

- **Right-of-Way Networks.** In order to secure additional revenues, Indian Railways is considering leveraging their "right-of-way" to attract investment in a fiber-optic network. Other sectors with similar rights-of-way will consider following the same path.
- **Wireless Technology.** In addition to the threat "right-of-way" leveraging poses, India will face increasing challenges from CDMA wireless technology that enables users to communicate and transmit large amounts of data with ease and at relatively low costs.

2. International Competition

Until quite recently, governments and public operators in India were fairly effective at blocking international competition in their domestic telecommunications markets. Since the mid-1990s, however, new and difficult-to-control sources of competition have been emerging and spreading rapidly. These include:

- **Callback Operators** — which have thrived due to the differences in tariffs between industrial and developing countries. Callback operators have quickly grabbed a sizeable portion of the telecommunications market in India. Even though there have been attempts to limit competition from callback providers, there is no clear-cut way for India to block callback services without hurting their own business.
- **Internet Phone** — which is a significant potential threat to established public operators. Software invented in 1994 now allows computers connected to the Internet to call telephones in the public switched telephone network (PSTN), and these services can be extended to phone-to-phone communication based on Internet gateways. The software allows telephone users to communicate over the PSTN at Internet prices.
- **Mobile Satellite Services** — which present both opportunities and challenges to public sector operators in India. Using low-earth-orbit satellites (LEOS), mobile satellite services can offer services that complement the PSTN. They can also bypass the public network by providing direct global services to large customers at very low costs. Since large customers account for three to five percent of India's public operator's customer base but more than 50 percent of its revenues, the migration of even a small number of these customers to mobile satellite services could significantly erode the public operator's profits.

India could attempt to contain these pressures through regulatory mechanisms, but there are few policies that can control the expansion of the new technologies, and unprepared public operators in India will find it increasingly difficult to compete against the commercial and technological sophistication and dynamism of international competition. New information technologies and services will progressively and irreversibly erode the market position of

DoT, VSNL and MTNL, as well as their profit margins. The financial value of these companies are almost certain to deteriorate, making them even less attractive to future investors.

Since the 1980s, information has been recognized as a fundamental factor of production, along with capital and labor, because businesses are more and more dependent on timely access to physical and informational inputs from around the globe. The information sector accounted for one-third to one-half of GDP and employment in OECD countries in the 1980s, and this number is expected to reach 60 percent for the European Community by 2000.²³

The simple fact is that efficient and diversified telecommunications networks are now vital to the smooth functioning of an economy, and India's economy is no exception. India's information-based industries are expanding rapidly, and these industries are dependent on fast and reliable information transmission. Indian engineers, for example, transmit software code from Bangalore to Texas Instruments; they must be able to transmit large amounts of data securely and at a reasonable cost if they are to remain competitive internationally. By reducing telecommunications costs, India's information industries can become even more competitive.

India's policies need to be reassessed to better address the needs of its information-based industries, as well as other industries.

- Today's end-user needs are multiplying rapidly, which requires a diversification of telecommunications services including security, high volume data transmission, accuracy, and/or control. It is unrealistic to expect that one service provider will be able to meet all these different requirements in a cost effective manner.
- Technological advances now enable providers to supply telephony through various mediums that increasingly blur the boundaries between these mediums.
- Technological innovation also enables the convergence of various networks. For example, cable television and electricity distribution companies in the United Kingdom use electricity distribution ducts and rights-of-way to connect to local telephone network facilities and provide local telephone service.

²³ Saunders, Robert, et. al. *Telecommunications and Economic Development*. Second Edition. John Hopkins University Press, 1994. Page 304.

TRAI's Importance

Historically, DoT has been responsible for telecommunications licensing, policy-making, and service provision in India. Today, this structure will likely impede liberalization. Policy and license functions should be separated to prevent conflicts of interest, and the service arm of DoT should be privatized.

To create a healthy and stable competitive environment, the Telecommunications Regulatory Authority of India (TRAI) should be given autonomy to issue licenses as well as to adjudicate disputes between the DoT and the licensee. Currently, disputes are resolved often only after lengthy legal battles.

Financing Telecommunications Improvements

Billions of investment dollars will be needed to develop India's telecommunications infrastructure if the country's NTP goals are to be met. Accordingly, India's New Policy should include the goal of attracting more investments in telecommunication development projects. Towards this end, the Government of India must provide adequate safeguards against arbitrary and unilateral regulations, government acts and omissions.

- **Equivalence and National Treatment** – regulations, license fees and laws must apply equally to foreign firms and the DoT;
- **Social Obligations** – private operators should not be required to provide services (such as telephones in rural villages and telephones on demand) that the state operator is not obliged to provide. Market forces will push private operators to deliver these services;
- **Transparency** - to overcome fears about the uncertainty of telecommunications policy in India, all rules, procedures and laws need to be transparent, organized and easily accessible to the public;
- **Government Procurement** - procurement policies should not discriminate between national and foreign firms;
- **Corruption and Bribery** – India should adhere to international conventions on corruption and bribery in order to reduce the heavy economic costs of such practices;
- **Tariff Barriers** – tariffs should be reduced in order to stimulate increased technology flows into India;

- **Local Content Requirements** – content requirements should be reduced because the majority of technology and parts necessary for the development of an efficient telecommunications network are produced internationally.

A demonstrated effort to address these concerns, including a greater commitment to the WTO Basic Telecommunication Agreement, will signal to international investors that India is serious about its liberalization process. In turn, this commitment will spur investment, and investment will help expedite India's liberalization process, as well as its realization of an internationally competitive telecommunications network.

Private Sector Support

The government alone cannot expedite the introduction of competition into the telecommunications industry in India. Established corporations can play a key role in the liberalization process by encouraging government officials and agencies to participate fully. Private sector input can help ensure that government policies make sense.

The private sector can also contribute to the liberalization process by stressing the benefits competition can bring, not just for their companies, but for the society as a whole. Informing friends, family and co-workers is an important first step in consensus building. Without private and public sector support from all levels, the liberalization process will encounter difficulties and delays.

India's WTO Commitments

India has made commitments under the WTO Telecommunication Agreement and started to liberalize aspects of its telecommunication sector. Yet without more concrete and transparent policies, India's liberalization process will not substantially improve the country's telecommunications infrastructure any time soon. If India wants to ensure that it will not fall behind the rest of the developing world, it should rapidly adopt a pro-competitive regulatory environment and make commitments to all of the WTO Reference Paper Principles.

Proposed Budget**Exhibit 12 - Proposed Budget**

Table 27 - Proposed Budget

Item	Cost
Headquarter Staff	\$180,000
International Consultants	\$30,000
Washington Counsel	\$150,000
National Experts	\$100,000
Study Tours/Missions	\$50,000
Subcontracts	
• WebPage	\$75,000
• Advertisement Creation	
Advertising Space (Domestic & International)	\$150,000
Training & Meetings	\$10,000
Conference & Roundtables	\$50,000
Equipment and Supplier	\$25,000
Miscellaneous Expenses	\$20,000
Total:	\$840,000

Funds will be generated from:

1. Members dues;
2. In-house work by TA and associations within TA's alliance;
3. Funds received from the government.

This paper was researched and written to fulfill the M.A. project requirement for completing the Monterey Institute of International Studies' Master of Arts in Commercial Diplomacy. It was not commissioned by any government or other organization. The views and analysis presented are those of the student alone. For more information about the Commercial Diplomacy program and the M.A. project requirement, please visit www.commercialdiplomacy.org.

Exhibit 13 - Proposed Timeline**Proposed Time Line**

The proposed strategy can be implemented immediately after it is approval. Immediate action is recommended because implementation will likely be slow and difficult.

The project will aim to lay the necessary groundwork in India and the United States within two years, after which concrete policy changes are expected. The goal is for India to make more concrete WTO BTA commitments, to increase privatizations, and to strengthen the role of the TRAI.

Annexes

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Annex I: Political Landscape (3 pages)

United States

ORGANIZATION/COMMITTEE	JURISDICTION	DEMOCRATS	REPUBLICANS	OBJECTIVE FOR ENLISTING SUPPORT
US Senate Committee of Foreign Relations - Subcommittee on International Economic Policy, Export and Trade Promotion	U.S. foreign economic policy, including export enhancement and trade promotion, and international economic growth and development.	Chuck Hagel, Chairman Paul S. Sarbanes, Ranking Craig Thomas	Bill Frist Paul Coverdell Joseph R. Biden, Jr. Paul D. Wellstone	Build consensus and support for U.S. intervention in Indian liberalization efforts
US Senate Committee on Commerce, Science and Transportation - Subcommittee on Communications	FCC, Corporations for Public Broadcasting, Communications Satellite Corporation, Encryption Communication, Intelsat, Telecommunication Industry Economics, Telecommunications Law, Universal Service, Spectrum Allocation	Ernest F. Hollings (D-SC) Daniel K. Inouye (D-Hawaii) Wendell H. Ford (D-Ken) John F. Kerry (D-Mass) John. B. Breaux (D-Ls) John D. Rockefeller IV (D-WV) Byron L. Dorgan (D-ND) Roy Wyden (D-Or)	Conrad Burns (R-Mon), Chairman Ted Stevens (R-Ala) Slade Gorton (R-Wa) Trent Lott (R-Miss) John Ashcroft (R-Missouri) Kay Bailey Hutchison (R-Tx) Spencer Abraham (R-Mic) Bill Frist (R-Tenn) Sam Brownback (R-Kan)	Can convince members to put pressure on executive branch and colleagues on other committees. Members of this committee will have a better understanding of the implications of open and expanded markets on the domestic industry.
House Committee on International Relations - Subcommittee on international Economic Policy and Trade	Relations of the United States with foreign nations generally. Measures to foster commercial intercourse with foreign nations and to safeguard American business interests abroad.	Sam Gejdenson, CT Pat Danner, MO Earl Hilliard, AL Brad Sherman, CA Steve Rothman, NJ Bob Clement, TN Tom Lantos, CA Bill Luther, MN	Ileana Ros-Lehtinen, FL, Chairman Don Manzullo, IL Steve Chabot, OH Tom Campbell, CA Lindsey Graham, SC Roy Blunt, MO Kevin Brady, TX Doug Bereuter, NE Dana Rohrabacher, CA	Build consensus and support for U.S. intervention in Indian liberalization efforts
House Committee on International Relations- Subcommittee on Asia & the Pacific	Relations of the United States with foreign nations generally. Measures to foster commercial intercourse with foreign nations and to safeguard American business interests abroad.	Howard Berman, CA Eni F.H. Faleomavaega, AS Robert Andrews, NJ Sherrod Brown, OH Matthew Martinez, CA Alcee Hastings, FL Robert Wexler, FL Lois Capps, CA	Doug Bereuter, NE, Jim Leach, IA Dana Rohrabacher, CA Peter King, NY Jay Kim, CA Matt Salmon, AZ Jon Fox, PA John McHugh, NY Donald Manzullo, IL Ed Royce, CA	Build consensus and support for U.S. intervention in Indian liberalization efforts

ORGANIZATION/COMMITTEE	JURISDICTION	DEMOCRATS	REPUBLICANS	OBJECTIVE FOR ENLISTING SUPPORT
House Committee on Commerce - The Subcommittee on Telecommunications, Trade, & Consumer Protection	Interstate and foreign commerce generally. Regulation of interstate and foreign communications. Interstate and foreign telecommunications including, but not limited to all telecommunication and information transmission by broadcast, radio, wire, microwave, satellite, or other mode; interstate and foreign commerce, including trade matters within the jurisdiction of the full committee;	Edward J. Markey, Massachusetts Rick Boucher, Virginia Bart Gordon, Tennessee Eliot L. Engel, New York Thomas C. Sawyer, Ohio Thomas J. Manton, New York Bobby L. Rush, Illinois Anna G. Eshoo, California Ron Klink, Pennsylvania Albert R. Wynn, Maryland Gene Green, Texas Karen McCarthy, Missouri John D. Dingell, Michigan	W.J. "Billy" Tauzin, Louisiana Michael G. Oxley, Ohio Vice Chairman Dan Schaefer, Colorado Joe Barton, Texas J. Dennis Hastert, Illinois Fred Upton, Michigan Cliff Stearns, Florida Paul E. Gillmor, Ohio Christopher Cox, California Nathan Deal, Georgia Steve Largent, Oklahoma Rick White, Washington James E. Rogan, California John Shimkus, Illinois Heather Wilson, New Mexico Tom Bliley, Virginia	Build consensus and support for U.S. intervention in Indian liberalization efforts Make contributions to Bliley Campaign & PAC; Tauzin Campaign & PAC; And Oxley Campaign & PAC
Federal Communications Commission	Develops and implements policy concerning interstate and international communications by radio, television, wire, satellite, and cable.	William E. Kennard, Chairman Susan Ness, Commissioner Gloria Tristani, Commissioner	Harold Furchtgott-Roth, Commissioner Michael Powell, Commissioner	Build consensus and support for U.S. intervention in Indian liberalization efforts
The National Telecommunications and Information Administration (NTIA)	CHAMPIONS GREATER FOREIGN MARKET ACCESS <ul style="list-style-type: none"> • Advocates competition and liberalization of telecommunications policies around the world. • Participates in international government-to-government negotiations to open markets for U.S. companies. • Negotiates with foreign governments to ensure adequate spectrum for national defense, public safety, and U.S. business needs. 		Becky Burr, International Affairs Kelly Levy, Office of Policy Analysis and Development	Use NTIA to raise issues on the international level and build support domestically through reports that advocate increased intervention by appropriate U.S. government agencies.

ORGANIZATION/COMMITTEE	JURISDICTION	DEMOCRATS	REPUBLICANS	OBJECTIVE FOR ENLISTING SUPPORT
U.S. Department of Commerce - International Trade Administration	Support the growth and competitiveness of the U.S. telecommunications industry by promoting international trade and investment opportunities for the U.S. telecommunications industry			
United States Trade Representative	Develops and coordinates U.S. international trade, commodity, and direct investment policy, and leads or directs negotiations with other countries on such matters.	Charlene Barshefsky, Ambassador, United States Trade Representative Nancy LeMond, Chief of Staff Robert T. Novick, Counselor to the USTR Dorothy Dwoskin, WTO and Multilateral Affairs Pate Felts, Intergovernmental Affairs and Public Liaison Frederick Montgomery, Policy Coordination Jon Rosenbaum, Trade and Development Donald Phillips, Asia Pacific and APEC Affairs		Build consensus and support for U.S. intervention in Indian liberalization efforts

Annex II: Key Players (3 pages)**Issue: Should India Accelerate Liberalization of Telecommunications?**

Public Interest Groups	Private Interest Groups	Elite	Government Institutions & Agencies
UNITED STATES			
Telecommunication Industry Association ISOC, Internet Society Cellular Telecommunications Industry Association Personal Communications Industry Association (PCIA) Multimedia Telecommunication Association (MMTA) Independent Data Communications Manufacturers Association United States Telephone Association (USTA) International Communications Association (ICA) The Satellite Broadcasting and Communications Association The Satellite Industry Association	Advanced Micro Devices (AMD) American Telephone & Telegraph (AT&T) Bell Atlantic Bell South Telecommunications, Inc. Cisco Systems, Inc. 3Com Corporation Compaq Computer Corporation GTE Hewlett-Packard Company Hughes Electronics Intel Corporation International Business Machines (IBM) Lockheed Martin Corporation Lucent Technologies MCI International Microsoft Corporation Motorola Inc. NEC USA Nynex Qualcomm Rockwell International Corporation Sprint Communications US West Zenith Electronics Corporation	William M. Daley, U.S. Secretary of Commerce Reed Hunt, FCC Chairman Governor Weld, Massachusetts Matthew Flanigan, President, TIA Roy Neel, President & CEO, USTA Robert M. Eilers, Executive Director, ICA Chuck Hewitt, President, Satellite Broadcasting and Communications Association Charlene Barshefsky, USTR Chuck Hagel, Chairman of Senate Subcommittee on Economic Policy, Export and Trade Relations Ileana Ros-Lehtinen, Chairman of House Subcommittee on International Economic Policy & Trade W.J. "Billy" Tauzin, Chairman, House Subcommittee on Telecommunications, Trade and Consumer Protection Doug Bereuter, Chairman, Senate Subcommittee on Asia and the Pacific Conrad Burns, Chairman, Senate Subcommittee on Communications	United States Trade Representative (USTR) Federal Communications Commission (FCC) Department of Commerce (DoT) National Telecommunications and Information Administration (NTIA) Senate Committee on Foreign Relations Senate Subcommittee on International Economic Policy, Export and Trade Promotion (Foreign Relations Committee) Senate Subcommittee on Asia and the Pacific Senate Subcommittee on Communications (Commerce, Science & Transportation Committee.) House Subcommittee on International Economic Policy & Trade House Subcommittee on Telecommunications, Trade and Consumer Protection

Issue: Accelerated Liberalization of Telecommunications in India

Public Interest Groups	Private Interest Groups	Elite	Government Institutions & Agencies
INDIA			
Confederation of Indian Industry (CII) The Associated Chambers of Commerce and Industry of India (ASSOCHAM) Federation of Indian Chambers of Commerce Industry (FICCI) Indian Merchants Chamber Labor Unions Cellular Operators Association of India	M/S Silicon Automation Systems (India) Pvt. Ltd. Bharti Telecommunications Ascom India Pvt. Ltd. Himachal Futuristic Communications Ltd. Hindustan Cables Ltd. National Radio and Electronics Co. Ltd. Ramtak Electronics Telephone Cables Ltd. Usha (India) Ltd. Webfil Ltd. HCL Group	R.K. Hedge, Minister of Commerce Naveen Patnaik, Minister of Steel & Mines Buta Singh, Minister of Communications Sushma Swaraj, Minister of Information and Broadcasting A.V. Gokak, Chairman, Telecommunications Commission B.K. Syngal, Chairman & Managing Director, VSNL A.K. Mittal, Director, Department of Telecommunications R.N. Agarwal, Wireless Adviser to the Government of India Ashok Golas, Deputy Director General, Telecommunications Engineering Center, DoT Kranti Kumar, Senior Deputy Director General, Ministry of Communications, DoT K.S. Mohanavelu, Deputy Director, Indian Space Research Organization	Telecommunication Commission Government of India Videsh Sanchar Nigam Ltd. (VSNL) Mahanagar Telephone Nigam Ltd. (MTNL) Ministry of Communications Department of Telecommunications Ministry of Information and Broadcasting Telecommunications Engineering Center, DoT Indian Space Research Organization Ministry of Defense Telecom Regulatory Authority of India (TRAI) Steel Authority of India Oil & Gas Commission Nationalized Banking System Nationalized Coal Mining Sector Union Government Railways

Issue: Accelerated Liberalization of Telecommunications in India

Public Interest Groups	Private Interest Groups	Elite	Inter-Governmental Institutions & Agencies
INTERNATIONAL			
International Institute for Communication and Development International Association of Broadcasting International Teletraffic Congress (ITC) Committee on Space Research European Public Telecommunications Network Operators' Association International Air Transportation Association International Telecommunications Users Group International Organization for Standardization International Union of Railways	Deutsche Telecom A.G. (Germany) Telestra Corporation Ltd. (Australia) Bezeq (Israel) Shinawatra (Thailand) Nippon Telephone & Telegraph (Japan) Itochu (Japan) Bell Canada PTT Guangdong (China) Moscow Telecom	Pekka Tarjanne, Secretary-General ITU Renato Ruggiero, Director-General WTO James D. Wolfensohn, President, World Bank Group	International Telecommunications Union (ITU) World Trade Organization (WTO) Inter-American Development Bank World Bank Group <ul style="list-style-type: none"> • IBRD • IDA • IFC • MIGA • ISCID United Nations Industrial Development Organization (UNIDO) United Nations Conference on Trade and Development (UNCTAD) Organization for Economic Cooperation and Development (OECD) International Telecommunications Satellite Organization (INTELSAT) European Space Agency International Mobile Satellite Organization (INMARSAT) Inter-American Telecommunications Conference Asia-Pacific Telecommunity

Annex III: Interest Charts (4 pages)

PEOPLE	INTERESTS	OPTIONS	OBJECTIVE CRITERIA	BATNA
TA	<p>Promoting liberalization of telecommunication markets worldwide</p> <p>Influencing domestic and international policy affecting its membership</p> <p>Advising its member companies of US and international policy affecting trade in telecommunication goods and services</p> <p>Open markets for US telecommunications goods and services</p>	<p>Maintain status quo</p> <p>Increase efforts to lobby Congress and other US gov't agencies to pressure India to expedite liberalization of its telecommunications market.</p> <p>Work with other US private sector agencies, NGOs, interest groups and int'l agencies to expedite liberalization of India's telecommunications market</p> <p>Put increased pressures on foreign countries during bilateral negotiations</p> <p>Defer any action to international multilateral organizations such as WTO, IMF, ITU and World Bank</p>	<p>ITU's annual report on telecommunications and developing countries</p> <p>World Bank's working papers on benefits of telecommunications liberalization.</p> <p>Commitments tabled by other countries in WTO Basic Telecommunication Agreement</p> <p>FCC statistics of rates of growth, decline in per call charges, and increases in efficiency due to telecommunication liberalization</p> <p>Increase in jobs due the growth in telecommunications sector and new businesses that rely on using telecommunications products and services to generate revenue (i.e. internet, sales, etc.)</p>	<p>Maintain status quo</p> <p>Boycott India entirely and convince other countries to do the same</p>

PEOPLE	INTERESTS	OPTIONS	OBJECTIVE CRITERIA	BATNA
<p>US INTEREST GROUPS</p> <p>US Chamber of Commerce</p> <p>Trade Associations</p>	<p>Promote US business interests</p> <p>Make US businesses strong through taking advantage of comparative advantages offered by different countries</p>	<p>Lobby for action by US government</p>	<p>ITU's annual report on telecommunications and developing countries</p> <p>World Bank's working papers on benefits of telecommunications liberalization.</p> <p>Commitments tabled by other countries in WTO Basic Telecommunication Agreement</p> <p>FCC statistics of rates of growth, decline in per call charges, and increases in efficiency due to telecommunication liberalization</p> <p>Increase in jobs due the growth in telecommunications sector and new businesses that rely on using telecommunications products and services to generate revenue (i.e. internet, sales, etc.)</p>	<p>Use their power to sway US businesses to boycott selling their products and services in India</p> <p>Lobby US to prevent Indian goods and services from entering US</p>

PEOPLE	INTERESTS	OPTIONS	OBJECTIVE CRITERIA	BATNA
<p>US BUSINESS</p> <p>Motorola</p> <p>AT&T</p> <p>Bell Atlantic, etc.</p>	<p>Take advantage of comparative advantages and expanded markets offered by different countries</p> <p>Produce products at cheapest cost and sell at highest costs so as to maximize profits</p>	<p>Status quo</p> <p>Pressure US govt. to boycott Indian goods</p>	<p>ITU's annual report on telecommunications and developing countries</p> <p>World Bank's working papers on benefits of telecommunications liberalization.</p> <p>Commitments tabled by other countries in WTO Basic Telecommunication Agreement</p> <p>FCC statistics of rates of growth, decline in per call charges, and increases in efficiency due to telecommunication liberalization</p> <p>Increase in jobs due the growth in telecommunications sector and new businesses that rely on using telecommunications products and services to generate revenue (i.e. internet, sales, etc.)</p>	<p>Take all activities out of US and threaten loss of govt. tax revenue.</p> <p>Convince other companies to do the same</p>
<p>INTERNATIONAL ORGANIZATIONS</p> <p>ITU</p> <p>WTO</p> <p>WORLD BANK</p> <p>IMF</p>	<p>Promote sustainable development</p> <p>Spread democracy</p> <p>Raise living standards</p> <p>Liberalize trade</p>	<p>Status quo</p> <p>Multilateral negotiations to expedite liberalization</p>	<p>ITU's Annual Report on Telecommunications and developing countries</p> <p>World Bank's working papers on benefits of telecommunications liberalization.</p> <p>Commitments tabled by other countries in WTO Basic Telecommunication Agreement</p> <p>FCC statistics of rates of growth, decline in per call charges, and increases in efficiency due to telecommunication liberalization</p> <p>Increase in jobs due the growth in telecommunications sector and new businesses that rely on using telecommunications products and services to generate revenue (i.e. internet, sales, etc.)</p>	<p>Stop international aid</p>

PEOPLE	INTERESTS	OPTIONS	OBJECTIVE CRITERIA	BATNA
INDIA	<p>Increase FDI flows</p> <p>Reduce unemployment</p> <p>Increase standard of living</p> <p>Retain sovereignty of national government</p>	<p>Listen to advice of international agencies and US.</p> <p>Ignore advice</p>	<p>ITU's annual report on telecommunications and developing countries</p> <p>World Bank's working papers on benefits of telecommunications liberalization.</p> <p>Commitments tabled by other countries in WTO Basic Telecommunication Agreement</p> <p>FCC statistics of rates of growth, decline in per call charges, and increases in efficiency due to telecommunication liberalization</p> <p>Increase in jobs due the growth in telecommunications sector and new businesses that rely on using telecommunications products and services to generate revenue (i.e. internet, sales, etc.)</p>	<p>Status quo</p> <p>Make deals with countries that accept slower paces of liberalization</p>
<p>UNITED STATES GOVERNMENT</p> <p>USTR</p> <p>FCC</p> <p>NTIA</p> <p>ITA</p>	<p>Open markets for goods and services</p> <p>Increase Human rights and labor law enforcement</p> <p>Maintain good bilateral relations with other countries</p>	<p>Status quo</p> <p>Take sides with US</p> <p>Join working groups in international agencies to address concerns</p> <p>Individually punish companies that do not uphold core labor rights</p> <p>Crack down on their own domestic companies not upholding labor rights</p>	<p>Accounting reports demonstrating cheaper costs of production by moving to countries with limited environmental protection.</p> <p>U.S. Office of Technology Assessment's 1992 Report on "Trade and the Environment".</p> <p>Montreal and Kyoto Protocols for environmental</p>	<p>Sanctions if ILO core labor rights are not enforced.</p>

NATIONAL TELECOM POLICY OF INDIA - 1994

NATIONAL TELECOM POLICY, 1994²⁴

1. Introduction:

The new economic policy adopted by the Government aims at improving India's competitiveness in the global market and rapid growth of exports. Another element of the new economic policy is attracting foreign direct investment and stimulating domestic investment. Telecommunication services of world class quality are necessary for the success of this policy. It is, therefore, necessary to give the highest priority to the development of telecom services in the country.

2. Objectives:

The objectives of the New Telecom Policy will be as follows:

- a) The focus of the Telecom Policy shall be telecommunication for all and telecommunication within the reach of all. This means ensuring the availability of telephone on demand as early as possible.
- b) Another objective will be to achieve universal service covering all villages as early as possible. What is meant by the expression universal service is the provision of access to all people for certain basic telecom services at affordable and reasonable prices.
- c) The quality of telecom services should be of world standard. Removal of consumer complaints, dispute resolution and public interface will receive special attention. The objective will also be to provide widest permissible range of services to meet the customer's demand at reasonable prices.
- d) Taking into account India's size and development, it is necessary to ensure that India emerges as a major manufacturing base and major exporter of telecom equipment.
- e) The defense and security interests of the country will be protected.

3. Present status:

The present telephone density in India is about 0.8 per hundred persons as against the world average of 10 per hundred persons. It is also lower than that of many developing countries of Asia like China (1.7), Pakistan (2), Malaysia (13) etc. There are about 8 million lines with a waiting list of about 2.5 million. Nearly 140,000 villages, out of a total of 5,76,490 villages in the country, are covered by telephone services. There are more than 100,000 public call offices in the urban areas.

4. Revised targets:

²⁴ From <http://gurukul.ucc.american.edu/MOGIT/LI1116a/policy.html>

In view of the recent growth of the economy and the reassessed demand, it is necessary to revise the VIII Plan targets as follows:

- a) Telephone should be available on demand by 1997
- b) All villages should be covered by 1997
- c) In the urban areas a PCO should be provided for every 500 persons by 1997
- d) All value-added services available internationally should be introduced in India to raise the telecom services in India to international standards well within the VIII Plan period, preferably by 1996.

5. Resources for the revised targets:

The rapid acceleration of telecom services visualized above would require supplementing the resources allocated to this sector in the VIII Plan. The total demand (working connections + waiting list) showed a rise of nearly 50% from 7.03 million on 1.4.1992 to 10.5 million on 1.4.1994 over a three year period. If the demand grows at the same rate for the next three years, it would touch about 15.8 million by 1.4.1997. The actual rate of growth is likely to be higher as the economy is expected to grow at a faster pace. Achieving the target of giving telephone on demand by 1997 would thus imply releasing about 10 million connections during the VIII Plan as against the existing target of 7.5 million. Release of 2.5 million additional lines alone would require extra resources to the tune of Rs. 11,750 crores at a unit cost of Rs. 43,000 per line at 1993-94 prices. To this must be added the requirement on account of additional rural connections of Rs. 4,000 crores.

6. Even with the comparatively modest targets of the VIII Plan, as originally fixed, there is a resource gap of Rs. 7,500 crores. The additional resources required to achieve the revised targets would be well over Rs. 23,000 crores. Clearly this is beyond the capacity of Government funding and internal generation of resources. Private investment and association of the private sector would be needed in a big way to bridge the resource gap. Private initiative would be used to complement the Departmental efforts to raise additional resources both through increased internal generation and adopting innovative means like leasing, deferred payments, BOT, BLT, BTO etc.

7. Hardware

With the objective of meeting the telecom needs of the country the sector of manufacture of telecom equipment has been progressively delicensed. Substantial capacity has already been created for the manufacture of the necessary hardware within the country. The capacity for manufacture of switching equipment, for example, exceeded 1.7 million lines/year in 1993 and is projected to exceed 3 million lines/year by 1997. The capacity for manufacture of telephone instruments at 8.4 million units per year is far in excess of the existing or the projected demand. Manufacturing capacities for wireless terminal equipment, Multi Access Radio Relay (MARR) for rural communication, optical fibre cables, underground cables etc. have also been established to take care of the requirements of the VIII Plan. With the

revision of the targets demand would firm up and there would be an incentive to expand the capacities to meet the extra requirement.

8. Value-added services:

In order to achieve standards comparable to the international facilities, the sub-sector of value-added services was opened up to private investment in July 1992 for the following services:

- a) Electronic Mail
- b) Voice Mail
- c) Data Services
- d) Audio Text Services
- e) Video Text Services
- f) Video Conferencing
- g) Radio Paging
- h) Cellular Mobile Telephone.

9. In respect of the first six of these services companies registered in India are permitted to operate under license on non-exclusive basis. This policy would be continued. In view of the constraints on the number of companies that can be allowed to operate in the area of Radio Paging and Cellular Mobile Telephone Services, however, a policy of selection is being followed in grant of licenses through a system of tendering. This policy will also be continued and the following criteria will be applied for selection:

- a) Track record of the company;
- b) Compatibility of the technology;
- c) Usefulness of the technology being offered for future development;
- d) Protection of national security interests;
- e) Ability to give the best quality of service to the consumer at the most competitive cost; and
- f) Attractiveness of the commercial terms to the Department of Telecommunications.

10. Basic services:

With a view to supplement the effort of the Department of Telecommunications in providing telecommunication services to the people, companies registered in India will be allowed to participate in the expansion of the telecommunication network in the area of basic telephone services also. These companies will be required to maintain a balance in their coverage between urban and rural areas. Their conditions of operation will include agreed tariff and revenue sharing arrangements. Other terms applicable to such companies will be similar to those indicated above for value-added services.

11. Pilot Projects:

Pilot projects will be encouraged directly by the Government in order to access new technologies, new systems in both basic as well as value-added services.

12. Technology and Strategic Aspects:

Telecommunication is a vital infrastructure. It is also technology intensive. It is therefore necessary that the administration of the policy in the telecom sector is such that the inflow of technology is made easy and India does not lag behind in getting the full advantage of the emerging new technologies. An equally important aspect is the strategic aspect of telecom which affects the national and public interests. It is therefore necessary to encourage indigenous technology, set up a suitable funding mechanism for indigenous R&D so that the Indian technology can meet the national demand and also compete globally.

13. Implementation:

In order to implement the above policy, suitable arrangements will have to be made to: (a) protect and promote the interests of the consumers; and (b) ensure fair competition.

The objectives of the New Telecom Policy will be as follows:

- a) The focus of the Telecom Policy shall be telecommunication for all and telecommunication within the reach of all. This means ensuring the availability of telephone on demand as early as possible.
- b) Another objective will be to achieve universal service covering all villages as early as possible. What is meant by the expression universal service is the provision of access to all people for certain basic telecom services at affordable and reasonable prices.
- c) The quality of telecom services should be of world standard. Removal of consumer complaints, dispute resolution and public interface will receive special attention. The objective will also be to provide widest permissible range of services to meet the customer's demand at reasonable prices.
- d) Taking into account India's size and development, it is necessary to ensure that India emerges as a major manufacturing base and major exporter of telecom equipment.
- e) The defense and security interests of the country will be protected.

Explanatory Paper on Additional Commitments by India

Scope

The following are definitions and principles on the regulatory framework for basic telecommunications services.

Definitions

Users mean service consumers and service suppliers.

Essential facilities mean facilities of a public telecommunications transport network or service that:

- (a) are exclusively or predominantly provided by a single or limited number of suppliers; and
- (b) cannot feasibly be economically or technically substituted in order to provide a service.

A major supplier is a supplier which has the ability to materially affect the terms of participation (having regard to price and supply) in the relevant market for basic telecommunications services as a result of :

- (a) control over essential facilities; or
- (b) use of its position in the market.

1. Competitive safeguards

Appropriate measures shall be maintained for the purpose of preventing service suppliers from engaging in or continuing in anti-competitive practices of the following type:

- (a) using information obtained from competitors with anti-competitive results; and
- (b) not making available to other services suppliers on a timely basis technical information about essential facilities and commercially relevant information which are necessary for them to provide services.

2. Interconnection

2.1 This section applies to linking with suppliers providing public telecommunications transport network or services in order to allow the users of one supplier to communicate with users of another supplier and to access services provided by another supplier, where specific commitments are undertaken.

2.2 Interconnection to be ensured

Interconnection with a major supplier will be ensured at any specified feasible point in the network as indicated in the licence. Such interconnection is provided:

- (a) of a quality no less favourable than that provided for its own like services or for like services of non-affiliated service suppliers or for its subsidiaries or other affiliates;
- (b) upon request, at points in addition to the network termination points offered to the majority of users as per licence conditions, subject to mutually agreed charges.

2.3 Public availability of the procedures for interconnection negotiations

The procedures applicable for interconnection to a major supplier will be made publicly available.

2.4 Transparency of interconnection arrangements

It will be ensured that a major supplier will make publicly available either its interconnection agreements, or a reference interconnection offer.

2.5 Interconnection: dispute settlement

A service supplier requesting interconnection with a major supplier will have recourse, either:

- (a) at any time or
- (b) after a reasonable period of time which has been made publicly known

to a domestic regulatory authority to resolve disputes regarding appropriate terms, conditions and rates for interconnection within reasonable period of time, to the extent that these have not been established previously.

3. Universal service

India retains the right to define the kind of universal service obligation it wishes to maintain. Such obligations are not regarded as anti-competitive *per se*, since they would be administered in a transparent and non-discriminatory manner.

4. Public availability of licensing criteria

Where a licence is required, the following will be made publicly available:

- (a) All the licensing criteria and

(b) the terms and conditions of individual licences.

5. Regulatory Authority

The decisions of and the procedures used by the regulatory authority shall be impartial with respect to all market participants.

6. Allocation and use of scarce resources

Any procedures for the allocation and use of scarce resources, including frequencies, numbers and rights of way, will be carried out in an objective and timely manner.

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