faster, and more versatile. One that is less expensive to use than existing systems, and more accessible to all the people of the world. But our goal is not merely technological advancement—more bandwidth, faster switching, more powerful processing capability, and greater compression and storage capacity. We view technology not as an end in itself but as the means through which the GII can realize its potential to improve the well-being of all people on this planet.

This "Agenda for Cooperation" sets forth the U.S. Government's vision for developing a GII that can yield the benefits described above and more. It identifies specific areas where intergovernmental, as well as government-private sector, cooperative efforts are needed. Also identified are proposals for concrete actions that the United States can take, by itself or with other nations, to accelerate the pace of development of the GII. While we believe the private sector will build, own, and operate the GII, governments have the power to take actions that can either accelerate or retard its development. We believe that a concerted and coordinated international effort can achieve the former and avoid the latter, and we invite other countries to join us in this cooperative venture.

## I. Introduction

A. Technological Convergence and the New Information Age

As we approach the end of the twentieth century, information is a critical force shaping the world's economic system. In the next century, the speed with which information is created, its accessibility, and its myriad uses will cause even more fundamental changes in each nation's economy.

These changes will be the result of technological convergence of the previously distinct telecommunications, information, and mass media industries. Boundaries that once separated the types of networks used to deliver voice, data, and video services are increasingly blurred. In a digital world, these services can be combined and offered over the same transmission system.

Multiple networks composed of different transmission media, such as fiber optic cable, coaxial cable, satellites, radio, and copper wire, will carry a broad range of telecommunications and information services and information technology applications into homes, businesses, schools, and hospitals. These networks will form the basis of evolving national and global information infrastructures, in turn creating a seamless web uniting

the world in the emergent Information Age. The result will be a new information marketplace, providing opportunities and challenges for individuals, industry, and governments.

B. New World Vision Through Communications: The GII as a Product of Technological Convergence and Competition

The Clinton Administration has made the development of an advanced National Information Infrastructure (NII) and the GII top U.S. priorities. A major goal of the NII is to give our citizens access to a broad range of information and information services. Using innovative telecommunications and information technologies, the NII—through a partnership of business, labor, academia, consumers, and all levels of government—will help the United States achieve a broad range of economic and social goals.

Similarly, other governments have come to recognize that the telecommunications, information services, and information technology sectors are not only dynamic growth sectors themselves, but are also engines of development and economic growth throughout the economy. With this realization, governments have sharply focused their public policy debates and initiatives on the capabilities of their underlying information infrastructures. The United States is but one of many countries currently pursuing national initiatives to capture the promise of the "Information Revolution." Our initiative shares with others an important, common objective: to ensure that the full potential benefit of advances in information and telecommunications technologies are realized for all citizens.

The GII is an outgrowth of that perspective, a vehicle for expanding the scope of these benefits on a global scale. By interconnecting local, national, regional, and global networks, the GII can increase economic growth, create jobs, and improve infrastructures. Taken as a whole, this worldwide "network of networks" will create a global information marketplace, encouraging broad-based social discourse within and among all countries.

The GII will depend upon an everexpanding range of technology and products, including telephones, fax machines, computers, switches, compact discs, video and audio tape, coaxial cable, wire, satellites, optical fiber transmission lines, microwave networks, televisions, scanners, cameras, and printers—as well as advances in computing, information, and networking technologies not yet envisioned.

But the GII extends beyond hardware and software; it is also a system of applications, activities, and relationships. There is the information itself, whatever its purpose or form, e.g., video programming, scientific or business databases, images, sound recordings, library archives, or other media. There are also standards, interfaces, and transmission codes that facilitate interoperability between networks and ensure the privacy and security of the information carried over them, as well as the security and reliability of the networks themselves. Most importantly, the GII includes the people involved in the creation and use of information, development of applications and services, construction of the facilities, and training necessary to realize the potential of the GII. These individuals are primarily in the private sector, and include vendors, operators, service providers, and users.

The GII will both stimulate and respond to global demand for new information technologies and services.1 The GII can offer consumers in each country unprecedented access to information from a variety of sources on a global basis. With appropriate changes in regulatory structure, the GII can also help usher in an environment more responsive to user demands by providing companies opportunities to offer any information or telecommunications product or service to any customer, rendering obsolete past regulatory labels or technological niches.

The business community has become the principal force for the procompetitive restructuring of telecommunications and information markets. Business users, whose commercial activities are becoming increasingly global, require access to advanced services at higher speeds and capabilities, and at lower costs, to manage their global operations effectively. When the national carriers cannot provide the unified international networks and services that companies need to conduct business and research, frustrated users develop their own international "private" networks, often leasing private lines from different national carriers. However, these private networks-even the most sophisticated—still suffer from the high cost of leased lines in most countries and the difficulties inherent in attempting to create global networks

<sup>&</sup>lt;sup>1</sup>In general throughout this report, references to "information services" are meant to be broad and to include all services, content, and applications to be provided over the networks of the GII. However, for specific statistics cited from other sources, the definitions from those sources apply.