

From 3 to 18 ISPs in Nepal

A Country Paper on Development of E-services in Nepal

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Abstract

The author of this paper conducted an e-mail survey on Internet use and other related issues in Nepal in the summer of 1998 when there were only three Internet Service Providers (ISPs). Some of the findings and predictions of that survey were: the Internet users in Nepal which was then estimated to be around 7000 will reach 100,000 by the end of the then century; the government should subsidize Internet connections and function as an ISP; civil society or NGOs were using the Internet and e-mail for sharing information and communication, and believed that it would expedite the development process in Nepal; and Internet and e-mail helped development professionals to manage their work effectively. Overall the commercial sectors in Nepal were using the e-services more than others like NGOs or educational institutions. In this paper the author reflects upon what were the findings and predictions then, and what has transpired in roughly 5 years since that survey.

E-services in Nepal have definitely come a long way and taken a leap since the author's survey, as from 3 ISPs in 1998 there are 18 currently. Government policies and institutional set-ups have come forth. And further leap is expected when the ongoing Nepali font standardization initiative is successful. However, the findings and predictions of the author's 1998 survey also indicated gray areas for research (to generate data, literature) on ICT perspectives in Nepal. Especially the socio-economic sectors. Such initiatives are yet to see the light of the day in Nepal the author opines.

1. Country Background

"...Nepal is land locked but not LAN locked..." - Poorna B. Adiga, Ministry of Science and Technology, Nepal, 2002

The kingdom of Nepal situated in South Asia on the Southern slopes of the Himalayan mountain range is geopolitically landlocked between India and China. Nepal is an elongated, rectangular country, with an area of approximately 147,181 square kilometers. Geographically Nepal is divided into three regions: the low-lying Terai region (17 percent of the total land area), the Mountain region (64 percent) and the Himalayan region (19 percent). Eight of the world's ten tallest peaks, including the highest Mount Everest are located in Nepal. Nepal's prominent resources include biodiversity and water. Tourism and handicraft export are the two mainstay of Nepalese foreign currency earning. Almost 90 percent of the population depends on agriculture for livelihood.

Population growth is between 2.4 – 2.7 percent. The population of Nepal by the end of 2002 was around 24 million (World Bank, 2003). Nepal is the only officially Hindu kingdom in the world. Over 85 per cent of its population is Hindu. The rest is comprised of Buddhists, Muslims, Christians and others. Nepali is the official language spoken by about half the population. And more than a dozen other languages are also spoken like Newari, Gurung, Thakali and Tamang. Despite rich in natural and cultural heritage and social diversity, Nepal is one of the least developed countries. Occupying 143 position in the UN's Human Development Index, the GDP per capita in Nepal in 2001 was US\$ 1310. The GNI per capita is US\$ 220 (World Bank, 2003). The adult literacy rate in Nepal in 2001 was 42.9 percent.

Administratively Nepal is divided into five development regions, 14 zones and 75 districts. The lowest administrative division is the Village Development Committee (VDC) of which there are 3,996. Nepal is governed by a constitutional monarchy, with a bicameral parliament, by a multiparty political system. The current Constitution of the Kingdom of Nepal was proclaimed in 1992. His Majesty the King is the head of the state.

Once a peaceful Himalayan kingdom, with a failed national propagation for zone of peace, Nepal since 1996 has been subject to violent Maoist insurgency. Since the commencement of Maoist insurgency in Nepal in 1996 in the past 7 years, to date, human rights organizations in Nepal claim that about 7000 people have been killed. Lately the government has initiated a peace process with the insurgent parties, but sporadic incidents of unprecedented killings continue.

2. Reflection

"...Use of Internet in Nepal would grow and gradually integrate itself into the everyday life of a Nepali family in the same way television has in Nepal over the past decade. ...When television first came to Nepal skepticism existed... same is observed of the Internet...but this will be overcome..."

- Respondent, Internet in Nepal Survey, 1998

Just few years after Internet services started making inroad to public domain in Nepal, in the summer of 1998, I conducted a rapid e-mail survey of Internet use and users, and on public opinion. When this e-mail survey was conducted there were only three ISPs in Nepal and the estimated Internet users were roughly 7000. Both the services and users were concentrated in the capital city of Kathmandu. There used to be only one cyber cafe in downtown Kathmandu and handful of public communication service outlets that provided Internet and e-mail services. And the access to Internet technology used to be not affordable to the middle-income group Nepalese. Though it was then also still cheaper than using telephones.

Some of the major findings and predictions of the survey were: Internet users in Nepal will skyrocket by the end of the century more than ten times; commercial organizations were using the Internet more, followed by I/NGOs; there were very little data and literature on ICT use in Nepal; the need and scope for research on ICT in Nepal was diverse; government needed to come up with subsidiary ICT policies; there were handful of websites on Nepal; and the practice of online researches and surveys were yet to institutionalize in Nepal.

Almost three years ahead from the last century, some of the findings and predictions of that survey have come true. There are now estimated to be 100,000¹ first level Internet users in Nepal. As for the ISPs, with 18 ISPs currently, the number of ISPs has grown six times since 1998. The government also has come up with ICT Policy 2000, which has been the turning point in the history of Internet development in Nepal. The Internet technology has also diversified in terms of use and access to hardware and software. The costs of the access and connectivity have also drastically come down, but relatively in global context still expensive. In every nook and corner of not only Kathmandu but also other towns outside the capital city the mushrooming of cyber cafes and e-mail services are found.

¹ Though there is no as such official data available on Internet users in Nepal. This figure has been drawn from various sources as the most common and reliable estimate.

I did not have my own PC at home when I did the survey in 1998, as having a PC at home was still expensive in Nepal then. As for connectivity, very few Nepali families could afford that. Now I have a Pentium 3 at home, which I got some years back for a price with which I could have never imagined getting even a Pentium 1 earlier.

With these reflections, the purpose of this paper is to descriptively, and where possible analytically look into the state of e-services in Nepal as of writing this paper, in tandem with the survey findings and predictions that I carried out in 1998.

3. E-services Facts and Figures: Past to the Present

"...Number of Internet users (in Nepal) will increase from roughly 5000 at present to 100,000 by the end of the century..." - Nepali IT Entrepreneur, Internet in Nepal Survey, 1998

The history of e-services, to be precise Internet, in Nepal is relatively short. In July 1995, Nepal Telecommunications Corporation (NTC) provided an international leased circuit to Mercantile Office Systems (MOS) for online link with Singapore Telecom. MOS became the first Internet Service Provider in Nepal followed by WorldLink and Computerland. These ISPs were vaguely operating in Internet business until a telecom regulatory body, Nepal Telecommunications Authority (NTA) was formed under 1997 Telecommunications Act.

In 1998 there were only 3 ISPs in Nepal. As of today, NTA has issued licenses to 18 ISPs in Nepal (see Annex 1). These ISPs provide dial-up Internet service through PSTN analogue telephone lines and leased line services to some corporate users through PSTN cable or radio links. Other services, normally ISPs provide are e-mail, web hosting, DNS registration, Efax etc. Some of these ISPs have POPs in 8 other major cities in Nepal besides Kathmandu. Internet is accessible in all urban areas and in some parts of rural areas where telephone service is available. It is estimated that currently more than 25,000 Internet/e-mail user accounts have been created and more than 100,000 people use Internet in Nepal. The Internet/e-mail subscriber density is 0.11 in 100 inhabitants (Thapa, 2002).

To date, NTA has issued VSAT licenses to 36 operators and most of the ISPs have Internet connectivity through VSAT technology. VSAT providers provide Internet connectivity to some ISPs by radio or PSTN cable links. Currently Internet bandwidth through VSAT is approximately 7 Mbps downlink and

3Mbps uplink throughout the country. The VSAT users in Nepal include both profit and non-profit organizations (see Annex 2).

The data network in Nepal comprising of PSTN leased line cable networks and wireless network viz. radios links and VSATs supports low speed Internet services. Most of the customers use 56 Kbps or less speed dial-up modems for Internet browsing. Some of the ISPs have E1 links with PSTN for Internet dialing but no ISDN connections or ADSL technologies are used so far. Few corporate users access high speed Internet service by radio or HDSL technologies.

The population of Nepal estimated to have Internet access in some ways comprises only 0.65 percent of the total population. Moreover, only a small fraction of these fall under the category of regular Internet users. The Internet service, which started out from Kathmandu some 6 years ago, has now made its presence in 16 districts of the Kingdom of Nepal. The ISPs have their point of presence in 16 out of 75 districts of the country (Thapa, 2002).

As per the World Bank ICT data in Nepal, in 2001 per thousand people there were 3.5 computers and 60 Internet users. In 1995 these statistics were 1.5 and 0.2. There has been a significant leap both in terms of accessibility and connectivity in Nepal within a decade or so.

4. Government's Initiatives

"...Get the government and the whole bureaucratic system hooked on the Net. Make them all Internet junkies!" - Respondent, Internet in Nepal Survey, 1998

Nepal Telecommunications Authority is the telecommunications regulatory body of Nepal. It is an autonomous body established in February 1998 in accordance with the Telecommunications Act, 1997 and Telecommunications Regulation, 1997. Its objective is to create a favorable and competitive environment for the development, expansion and operation of telecommunications services in Nepal. The general electronic services provided by NTA includes: Basic Telecommunications Service; Cellular Mobile Communication Service and Value Added Services which includes Internet (including e-mail service); Audio Text/Voice Mail Service; Video Text Service; Fax Mail Service; VSAT User; VSAT Network Provider; Audio Conference Service; Pay-Phone Service; Pre-paid Calling Card; Local Data Network; Radio Paging Network Services; Trunk Mobile Service; Video Conferencing, and Global Mobile Personal Communication System.

The government's initiative in Nepal to promote electronic services in terms of computers can be traced back to the early 1970s when the first Computer, IBM 1401, was brought to the kingdom in 1971 for processing census data². Subsequently the government in 1974 established the Electronic Data Processing Center (EDPA) and it existed till 1978. In 1978 EDPA metamorphosed into the National Computer Center (NCC). Unfortunately, when the whole world was gaining momentum with electronic services based information revolution, the NCC in Nepal after two decades of existence became officially defunct in 1998.

Currently national level institutional set-up for information technology (IT) in Nepal includes: National IT Development Council (NITDC) that is chaired by Prime Minister; National IT Coordination Committee (NITCC) that is chaired by Minister for Science and Technology (MoST), and National IT Center (NITC) that is chaired by the Secretary, MoST. Recently the Nepali government has set up a high level IT council which replaces the NITDC. The Ministry of Science and Technology which was established in 1996 and under whose jurisdiction the IT development institutional set-up in Nepal falls has also formed an IT Park Development Committee. A national IT Park, among other things, for housing IT industries, IT research and training/educational institutes is under construction in Banepa town, about 25 kilometers from the main capital city Kathmandu. The government has allocated a premise for this national initiative and physical facilities construction work is under way.

The Nepali government started work on preparing national information technology (IT) policy in the late 1990s. The task of preparing the IT policy was bestowed to Nepali government's National Planning Commission. After a year of research and consultations the Nepal National IT Policy 2000 was promulgated. Among other things, His Majesty's Government, Nepal, Information Technology Policy 2000 includes national IT objectives, strategies, policies and action-plans. The vision of the IT policy in Nepal states: "To place Nepal on the global map of information technology within the next five years". To achieve this vision, the objectives of the IT Policy 2000 are: 1) To make IT accessible to the general public and increase employment through this means; 2) To build a knowledge-based society, and 3) To establish knowledge-based industries.

The IT Policy 2000 outlines the IT as a priority sector and direct the government to act as a promoter, facilitator and regulator for IT

² It is reported that during the Ninth Five-year Plan period (1997-2002) of the government 80,000 computers were imported in Nepal. At the beginning of the Ninth Plan 20,000 computers were recorded to be in use in Nepal (Ghimire, 2003).

development in Nepal. It gives high priority to research, development and extension of IT in Nepal with a priority to facilitate IT network to be extended to rural areas. IT development investment wise, the policy states that there may be up to cent percent foreign investment in areas such as IT Park, research and development, technology transfer and human resource development. Private sectors are encouraged to invest in IT parks in different parts of the country. Any company interested in establishing an industry within an IT Park is to be levied only one percent customs duty on imported equipment for the next five years from the promulgation of the IT Policy 2000.

As far as e-commerce is concerned, the IT Policy 2000 under the sub-heading 'Promotion of E-commerce and so forth' states that e-business, tele-medicine, tele-processing, distant learning, among others, shall be promoted by: making necessary arrangements to encourage e-commerce; necessary legal infrastructure shall be created for the promotion of tele-medicine, distant learning, tele-processing, and e-commerce; intellectual property rights shall be protected through the formulation of necessary laws related to the development of information technology. Further the IT Policy states that provisions shall be made for the export of software information technology services through IT by the person or organization concerned submitting certified duplicate copies of the documents on agreements relating to export and invoice or bill of exportation made under the agreements referred to has to be submitted to the Nepal Rastra Bank (Nepal National Bank, which controls the foreign currency exchange in Nepal), and the Nepal Rastra Bank has to validate foreign currency obtained on the basis of such documents.

Regarding e-commerce in Nepal, Gaurab Upadhaya in his paper 'E-commerce, are we ready?' writes: "In Nepal's case, the pending cyber law and the much awaited IT bill promises to bring in legal mechanism for e-commerce. This would probably aid in the Business to Business (B2B) arena, but for Business to Consumer (B2C) to take off in Nepal, fundamental changes are required in the foreign exchange regulations, and payment gateways needs to be set up. To copy the growth in the Internet sector, mostly the result of the liberalization in the telecom arena, something similar is needed". Gaurab further says that for Nepal, the National Planning Commission has time and again committed towards formulation of the policies, and the bill is expected to be tabled in the parliament soon. But the major question remains is that of implementation. The government machinery has been reciting by overcoming the hurdles we face as a landlocked mountainous country, e-commerce can also hello us to promote trade in goods and services within and outside Nepal, but it has not been able to go beyond lip service and do things it promises.

Similarly, in the areas of e-governance in a position paper prepared by Rajesh Upadhaya of Nepal's National Planning Commission, it is stated: for e-governance to take off, there needs to be a pro-active government that will utilize information technology to promote efficiency in its administration; a high level board for policy making Nepal IT Board (NITB) under the chairmanship of the Prime Minister should be set up to provide guidelines and directives; each ministry and department should have an IT cell within the planning division. It should prepare annual IT plans of their respective agencies along with funding requirements for approval to the NITB Secretariat; and clear policies and objectives for standardization of data and applications through precise definition of their field of application, data collection procedure, updating, and process of application development.

As far as implementation of e-governance initiative in Nepal is concerned, the Rural-Urban Partnership Program (RUPP) initiated in 1997 is a joint program of the National Planning Commission (NPC), Ministry of Local Development (MLD) and Ministry of the Physical Planning and Works (MPPW), of His Majesty's Government of Nepal (HMG) and United Nations Development Program (UNDP), executed by the United Nations Center for human Settlement (UN-Habitat). Currently in its second phase of implementation the goal and objectives of RUPP states: foreseeing the benefits of a merger of good governance with ICT, RUPP has helped municipalities to implement e-governance with the prime objective of strengthening its efforts to good urban governance focusing on strong information base, and delivery of urban services through ICT. Beside this, the other objectives of the e-governance program are to: increase access to information to ensure the right to information to public granted by the Constitution of the Kingdom of Nepal; strengthen information base for participatory planning, monitoring and evaluation for increased transparency, efficiency and effectiveness, and accountability; improve linkages of Urban Information Center (UIC) with communities; increase urban services delivery by improving the efficiency of municipal administration; improve tax base with an efficiently run finance administration of the municipality, and promote private sector and community to develop computer culture.

Keeping aside the above-discussed initiatives taken by the government in Nepal, the IT Policy 2000 is yet to become a national IT Act. Due to political instability in the country, the bill that has been prepared on IT Policy in Nepal is yet to be passed by the legislatures as a national act. Besides this, a draft cyber law called 'Electronic Transaction and Digital Signature Act' has also been prepared for Nepal, but it is also yet to be officially finalized and enacted.

5. Business and Government Partnerships

"...The government/Nepal Telecommunication Corporation should subsidize computers/information technologies to I/NGOs, government offices/departments and other industries...". - Respondent, *Internet in Nepal Survey, 1998*

The Nepali government propounds conducive provisions for the private business sector to endeavor IT enterprise development. Such conducive provisions have led to development of IT business sector primarily from the private sector in Nepal.

It is interesting to note that in Nepal the public Internet services came about from the private sector. As already mentioned, Mercantile Office Systems was the first ISP in Nepal. As of today also all the ISPs are private enterprises except the recently started Nepal Telecommunication Corporation ISP service. Most of the IT training and educational institutes are also privately owned. The NTA provides licenses to private business to operate different mode of e-services in Nepal (see above under section 3).

An ISP license can be obtained from NTA in order to start Internet/e-mail services. No limit has been imposed on the number of licenses that can be issued by NTA for this service. Any party intending to commence this service can submit an application to NTA in its prescribed format together with a proposal explicitly stating marketing, financial, management and technical aspects of the service. NTA evaluates the proposal and issues the license if the proposal meets all the criteria required for an ISP. The license granted remains valid for a period of 5 years and the license fee amounts to NRs 300,000² (US\$4000). The license should be renewed prior to the termination of initial license duration to extend it for another 5 years. The license renewal fee is NRs 270,000 (US\$3600). If radio frequency is to be used, spectrum fee should be paid separately (Magar, 2002).

Some of the important conditions an ISP should abide by are: an ISP should submit 4 percent of its gross annual income as royalty to His Majesty's Government and 2 percent of its gross annual income to Rural Telecommunications Development Fund as its Universal Service Obligation; an ISP should not operate Basic Voice Telephony Service and should not interconnect with the domestic or international PSTN; an ISP should conform to the Quality of Service conditions stipulated in the license. The conditions are: the service should be provided 24 hours daily and downtime should not be greater than 5 percent in a year; the ratio of telephone lines and

² Currently 1 US \$ = 74.5 Nepali Rupees (NRs)

customers should be maintained at 1 telephone line: 30 customers. An ISP can connect to the Internet Backbone in one of the following ways: through direct international connectivity, via, NTC's gateway and VSAT link. If an ISP opts for VSAT connectivity, it should obtain the VSAT user license; by leasing Internet Bandwidth of another licensed ISP in Nepal that has direct connectivity to the Internet Backbone. The two ISPs can be connected using radio modem or NTC's lease line (NTA Guideline, 2000).

6. Civil Society and E-technology

"...Private and non-government organizations are using the Internet more. ...Are using Internet to better manage their communications and respective professions..." - Internet in Nepal Survey, 1998

When I conducted the Internet use survey in Nepal in 1998, 40 percent of the respondents were from development international and national non-government organizations (I/NGOs). The common opinion that came out from the survey was I/NGOs communications practices have improved with the use of e-mail. They found it cheap, reliable, fast and convenient. As far as how Internet is going to expedite the development process in Nepal was concerned, most respondents had indicated that "sharing information and communicating" would be a primary means for expediting the development process. Some were of the opinion that Internet could be or should be used by NGOs to advocate for social change and sustainable development, networking of like-minded individuals and organizations. One respondent held the opinion that the Nepal Telecommunication Corporation acting as an ISP and subsidizing the Internet connection service charge to the public can also contribute to speeding up the development process in Nepal.

Basically in Nepal, the civil society or non-government organizations are found to use e-services (Internet and e-mails) for internal and external communications. The NGOs are observed to have maintained websites which basically provides information on the organizations and its various activities, such as projects, publications, and events like conferences, workshops etc. This could be assessed as using e-services for organizational promotion as well as disseminating information. Lately the concept of information and knowledge management has also sipped in to NGOs. It can be said in very loose terms of the whole ambiguous concept of knowledge management, that Internet, e-mails and list serves are being used by most of the NGOs in Nepal for knowledge sharing as well as their organizational websites for knowledge management.

According to data available (Computer Association of Nepal, 2000) of the total 25,000 Internet accounts in Nepal, NGOs shared 15 percent. Rest of the Internet users included commercial - 30 percent, INGOs - 20 percent, educational institutions - 10 percent and government - 10 percent (Layton Montgomery, 2002).

Layton Montgomery in his PhD paper 'NGOs and Internet in Nepal' writes, "the main initiative that spurred the use of Internet by NGOs in Nepal was the Electronic Networking for Sustainable Mountain Development project, or Electronic Networking Project (ENP) for short, which began in April 1997 (ICIMOD, 2000). Fortuitously, this was at the same time that the price for Internet access began to drop significantly in Nepal".

Further Layton among other things writes that NGO staff would primarily use Internet for e-mail communication, and the total time spent connected to the Internet might only be a few hours per week for all the staff combined. In my survey in 1998, the frequency of Internet use per day by commercial and NGO sectors ranged from six hours to half an hour. Then also, like Layton's findings the Internet was mostly used for sending e-mails. However, the commercial sectors were using Internet for browsing and retrieving information as well as downloading freeware. In my personal experience and observation, more and more NGOs are using Internet in Nepal not only for e-mails, but also for retrieving information from the World Wide Web, as well as for networking. Likewise, many NGOs working on specific issues like sustainable development, human rights, environments are using Internet tools such as list serves and websites for advocacy purposes also. Many NGOs are using Internet to manage knowledge on their development activities like success stories and lessons learnt.

Regardless of the size of the organization, or the level of individual use, all the respondents in Layton's interview with NGOs' staff respondent that e-mail and the Internet were valuable resources, both for accessing information from outside Nepal and for promoting their own organizations to others abroad. One respondent felt that her organization's web site was "successful". Which meant to her that similar organizations in other countries had seen their website and contacted them because of it. Further in line with my survey in 1998, Layton's research also indicated that Internet access makes it easier to place and keep NGO professional staff in rural areas, communicate with them and *vice versa*.

Besides the things described above, interestingly the NGOs that Layton interviewed opined that they have to play the intermediary role in bridging the simmering urban-rural digital divide in Nepal. It was opined so as business wise for the commercial e-service providers rural areas are not

potential locales. To address such digital divide within Nepal there have been several initiatives taken by NGOs as well as by multilateral organizations like UNDP, jointly with Nepali government. The UNDP jointly with the Nepali government's concerned department has recently started the pilot phase of setting up tele-centers in several districts' VDCs in Nepal.

Nepali grass-root NGOs like Committee for Promotion of Public Awareness and Development Structure (COPPADES) in collaboration with World Computer Exchange Incorporation has implemented Nepal ICT Project since year 2000. This project targets local schools and marginalized communities in the rural and remote districts of Nepal to bring the Internet and e-mail know-how to them. Besides providing training on computers to school teachers and communities, this project also installs hardware and software in schools and rural community halls.

7. Where is e-Nepal heading?

"...The gap between the natural development of Nepal and the Internet will widen as years go by. I am not optimistic about the development of Nepal vis-à-vis Internet...". - Respondent, *Internet in Nepal Survey, 1998*

After my survey in 1998, to date, the e-services in Nepal have taken strides in leaps and bounds. The leap between the periods of roughly 5 years has been from 3 to 18 ISPs in Nepal. All in all there are 36 VSAT users in Nepal. The number of first and second level Internet users is estimated to cross 100,000. If one wanders down the streets of Kathmandu running into an e-service outlet out of ten whatever outlets is a portend possibility. This trend in cities other than Kathmandu could be one out of twenty. If one is to key in 'Nepal' on any search engine, ping goes tens of thousands of sites' listing on Nepal. The websites are composite of commerce, educational institutions, NGOs, issues (environment, culture) and many other matters that collage the Nepali society. If an organization whether government or non-government or commercial do not have a website then they are considered a technological laggard. However, on the other hand, there have been sporadic occurrences of so to say Internet related crimes in Nepal.

The Nepali government also has come a long way from where it was in 1998 by bringing forth the Nepal ICT Policy 2000 and the cyber law is in the process of being finalized. There have been significant achievements on setting up institutional mechanisms at national level to manage IT sector development in Nepal. The Nepal Telecommunication Corporation now functions as an ISP also. The ISPs have their point of presence in 16 out of 75 districts of the country. The recently promulgated Tenth Development

Plan (2003 - 2008) of Nepal has also given a significant priority to IT sector development in Nepal.

Apart from these, one of the noteworthy developments in Nepal has been the IT project that is working on font standardization of the Nepali Unicode. With the successful completion of standardization of the Nepali font initiative, then the e-services in Nepal will be taking another leap. This leap is expected to come about when any Nepali farmer not speaking English, might as well swear over the net in Nepali font! With of course the tele-centers being there to the Nepali farmers' accessibility.

Having said that, what was indicated by my survey in 1998 that there was a need to look into what has been the impact of ICT or for that matter e-services "to net in the Nepali economic development" still holds true. Same goes for Internet and Nepali society, with increasing sporadic occurrences of Internet related social crimes in Nepal. With other leaps on e-services development in Nepal, it is reckoned that social and economic issues will also see the light of the day in near future.

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- Online Nepali daily news papers, magazines, journals
URL: www.nepalnews.com

Annex 1

Table 1: List of Licensee, Internet (including e-mail services) in Nepal

Sr. No	Name of the Licensee	Contact Address
1	Capital Online Pvt. Ltd Kathmandu Plaza, Kathmandu	Phone: 977-1-240865 info@col.com.np
2	Mercantile Communications Pvt. Ltd Durbar Marg, Kathmandu	Phone: 977-1-220773 postmaster@mos.com.np
3	Worldlink Communications Pvt. Ltd Jawalakhel, Lalitpur	Phone: 977-1-523050 info@wlink.com.np
4	Computerland Communications System Ltd. Ram Shah Path, Kathmandu	Phone: 977-1-223226 ccsl@ccsl.com.np
5	HTP Communication Pvt. Ltd. Kalikasthan, Kathmandu	Phone: 977-1-415772 info@htp.com.np
6	Himalayan Online Pvt. Ltd. Bag bazaar, Kathmandu	Phone: 977-1-220848 info@hons.com.np
7	Global Internet Services Pvt. Ltd. Bakhundol, Lalitpur	Phone: 977-1-544277
8	Everest Net Pvt. Ltd. Jawalakhel, Ward No. 4 Lalitpur	Phone: 977-1-546010 info@enet.com.np
9	Infocom Pvt. Ltd. Hattisar, Kathmandu	Phone: 977-1-436458 info@info.com.np
10	Unlimited Numedia Pvt. Ltd. Khichapokhari, Kathmandu	Phone: 977-1-251070 allen@unlimit.com
11	Network technologies Pvt. Ltd. Kamaladi, Kathmandu	Phone: 977-1-432253 dev@nepalnetwork.com
12	Nepal Gateway Communication Pvt. Ltd. Hattisar, Kathmandu	Phone: 977-1-434961 highmtn@wlink.com.np
13	Nepal Telecommunications Corporation Pulchowk, Lalitpur	Phone: 977-1-536971 info@ntc.net.np
14	Square Network Pvt. Ltd. Sanepa, Lalitpur	Phone: 977-1-523619 snet@squarenet.com.np
15	Via Net Pvt. Ltd. Pulchowk, Lalitpur	Phone: 977-1-546410 info@vianet.com.np
16	Sailung Dot Com Pvt. Ltd. Bhanuchowk, Dharan	Phone: 977-25-26528 amrit@sailung.com
17	Fewa Net Pvt. Ltd. Pokhara, Kaski	Phone: 977-61-31548 info@fewanet.com
18	BajraNet Pvt. Ltd. Panipokhari, Kathmandu	Phone: 977-1-425267 bajranet@prichaya.com

Source: Nepal Telecommunication Corporation Website (October, 2003)

Annex 2

Table 2: List of VSAT Users in Nepal

Sr. No.	Name of the Licensee	Contact Address
1	Nepal Grindlay's Bank Ltd. New Baneshwor, Kathmandu (Kathmandu New Baneshwor Terminal)	Phone: 977-1-229333 Fax: 977-1-226762
2	Mercantile Communications Pvt. Ltd. Durbar Marg, Kathmandu (Kathmandu Dubarmarg Terminal))	Phone: 977-1-220773 postmaster@mos.com.np
3	Residence Office of World Bank in Nepal Hotel Yak&Yeti Complex, Kathmandu	Phone: 977-1-226792 bpradhan@worldbank.org
4	Everest Net Pvt. Ltd. Jawalakhel, Lalitpur	Phone: 977-1-521506 info@enet.com.np
5	Mercantile Communications Pvt. Ltd. Durbar Marg, Kathmandu (Birgunj Terminal)	Phone: 977-1-220773 postmaster@mos.com.np
6	Surya Tobacco Co. Pvt. Ltd. Kantipath, Kathmandu (Kantipath Kathmandu Terminal)	Phone: 977-1-227328 stc@mos.com.np Fax: 977-1-227585
7	Surya Tobacco Co. Pvt. Ltd. Kantipath, Kathmandu (Simara Terminal)	Phone: 977-1-227328 stc@mos.com.np Fax: 977-1-227585
8	Nepal Grindlay's Bank Ltd. New Baneshwor, Kathmandu (Kathmandu Kantipath Terminal)	Phone: 977-1-229333 Fax: 977-1-226762
9	Nepal Grindlay's Bank Ltd. New Baneshwor, Kathmandu (Pokhara Terminal)	Phone: 977-1-229333 Fax: 977-1-226762
10	Nepal Grindlay's Bank Ltd. New Baneshwor, Kathmandu (Biratnagar Terminal)	Phone: 977-1-229333 Fax: 977-1-226762
11	Infocom Pvt. Ltd. Hattisar, Kathmandu	Phone: 977-1-436458 info@info.com.np Fax: 977-1-435826
12	Mercantile Communications Pvt. Ltd. Durbar Marg, Kathmandu (Hetaunda Terminal)	Phone: 977-1-220773 postmaster@mos.com.np
13	Mercantile Communications Pvt. Ltd. Durbar Marg, Kathmandu (Pokhara Terminal)	Phone: 977-1-220773 postmaster@mos.com.np
14	Himalaya Rescue Dog Squad Pvt. Ltd. Shyauli Bazaar, Lamjung	Phone: 977-61-23267 hrrdsn@cnet.net.np
15	Worldlink Communications Pvt. Ltd. Jawalakhel, Lalitpur (Lalitpur Jawalakhel Terminal)	Phone: 977-1-523050 info@wlink.com.np
16	Global Internet Services Pvt. Ltd. Bakhundol, Lalitpur	Phone: 977-1-544277

17.	Nepal Gateway Communications Pvt. Ltd. Hattisar, Kathmandu	Phone: 977-1-434961 highmtn@wlink.com.np
18	Nepal Grindlay's Bank Ltd. New Baneshwor, Kathmandu, (Hetaunda Terminal)	Phone: 977-1-229333 Fax: 977-1-226762
19	Nepal Grindlay's Bank Ltd. New Baneshwor, Kathmandu, (Bhairahawa Terminal)	Phone: 977-1-229333
20	Bank of Kathmandu Ltd. Kamaladi, Kathmandu (Kathmandu Kamaladi Terminal)	Phone: 977-1-414541 info@bok.com.np Fax: 977-1-418990
21	Bank of Kathmandu Ltd. Kamaladi, Kathmandu (Hetauda Terminal)	Phone: 977-1-414541 info@bok.com.np Fax: 977-1-418990
22	Bank of Kathmandu Ltd. Kamaladi, Kathmandu (Butwal Terminal)	Phone: 977-1-414541 info@bok.com.np
23	Bank of Kathmandu Ltd. Kamaladi, Kathmandu, (Nepalgunj Terminal)	Phone: 977-1-414541 info@bok.com.np
24	Himal Power Ltd. Kirne, Dolakha	Phone: 977-1-521864 hpl@hpl.com.np
25	Larsen and Tubro Limited Syabrubesi, Rasuwa	Phone: 977-1-413808 lrcgnp@mos.com.np
26.	Dywidag Dragados (CWE) JV C/O Middle Marsyangdi Hydroelectric Project Udipur, Lamjung	Phone: 977-1-413808 Fax: 977-1-421943 ddc_jv@info.com.np
27.	Kathmandu University Dhulikhel, Kavre	Phone: 977-11-61399 info@ku.edu.np
28.	Worldlink Communications Pvt. Ltd. Jawalakhel, Lalitpur (Birgunj Terminal)	Phone: 977-1-523050 info@wlink.com.np
29.	Worldlink Communications Pvt. Ltd. Jawalakhel, Lalitpur(Biratnagar Terminal)	Phone: 977-1-523050 info@wlink.com.np
30.	Worldlink Communications Pvt. Ltd. Jawalakhel, Lalitpur (Pokhara Terminal)	Phone: 977-1-523050 info@wlink.com.np
31.	Worldlink Communications Pvt. Ltd. Jawalakhel, Lalitpur (Bhairahawa Terminal)	Phone: 977-1-523050 info@wlink.com.np
32.	Standard Chartered Bank Nepal Ltd. New Baneshwor, Kathmandu (Hetauda Terminal)	Phone: 977-1-229333 Fax: 977-1-226762
33.	Standard Chartered Bank Nepal Ltd. New Baneshwor, Kathmandu (Biratnagar Terminal)	Phone: 977-1-229333 Fax: 977-1-226762
34.	Standard Chartered Bank Nepal Ltd. New Baneshwor, Kathmandu(Bhairahawa Terminal)	Phone: 977-1-229333 Fax: 977-1-226762
35.	Standard Chartered Bank Nepal Ltd. New Baneshwor, Kathmandu, (Pokhara Terminal)	Phone: 977-1-229333 Fax: 977-1-226762
36.	Himalayan T Commerce Pvt. Ltd. Balaju Industrial District , P.O Box 4605, Kathmandu	Phone: 977-1-350660 sigma@gem.wlink.com.np

Source: Nepal Telecommunication Corporation Website (October, 2003)