

**Kathmandu University**  
**Information System Management Section (ISMS)**  
**January, 2013**

**Kathmandu University Information System Management Section is dedicated to:**

- *Improve the use of technology to support teaching and learning.*
- *Improve access to information.*
- *Improve infrastructure and increase connectivity.*
- *Maximize benefits of investments in technology.*
- *Improve effectiveness of KU Information Technology operations.*

**Main function/s**

- Development and Implementation of evolutionary University ICT Strategic Plans; Policies; Standards; Operational Plans; & Budgets; sensitive to emerging technologies and responding to changing needs and practices.
- Acquisition and Development of University ICT Network Infrastructure and Services
- Acquisition and Development of University Management Information Systems and Services
- Acquisition and Development of expanded Corporate Internet Services; especially Browsing (Research, Journals etc.) and E-mail (staffs & students)
- Aggressive and Continued Training on Basic and Intermediary ICT Skills for all Students and Staff

**Service/s & Supports**

**Online**

E-Learning, Online Admission procedure (with backup), Video conferencing (NTNU-Norway, ITC-Netherlands), Online Public Access Catalogue (OPAC), KUSSET – E journal, News & Events, Students online Magazine, KUELF (E-learning forum), Moodle (E-Learning, Exam results)

**Email**

Staff & Students

**Wifi**

Cyber chour, Admin building, CVRAMAN Auditorium, Electrical, Mechanical Civil & Geomatics, Mass and Communication Department & Library

**Web & Database**

KU webpage, Database (mysql), FTP (File Transfer Protocol), Department Webpage, Personal webpage (php.cgi.db), KU Alumni, MSSQL(SOUL)

**Internet for Hostel**

Boys, Girls, LMTC, & International Hostels

**Support & Maintenance**

Supervising student's project related on IT, Support & Maintenance on IT related problem

**To promote**

Open Source Software/s, Microsoft Genuine Software/s

**Servers:**

Mikrotik Server (Bandwidth Manager), Proxy Server, DNS Server, Backup Server, SOUL Server, OPAC Server, Web Server, NLP Server, KUCC Server, Online Admission Server, Moodle(E-learning) Server, SUS (Windows patch management)

## Network Management Software/s:

Mikrotik Bandwidth Manager, MRTG (Multi Router Traffic Grapher), SNMP (Simple Network Management Protocol), IPTRAF, Cacti, SNORT

## Security Software/s:

Microsoft Security Essential – For genuine only, Avira AntiVir Personal - Free Edition

## Operating System

LINUX

Gentoo, Redhat, Debian, Ubuntu, Puppy linux,  
Brazilian Firewall (BFW),

FreeBSD

Microsoft Windows Server

## Factsheet

- 1. Internet Connection:** Through Fibre optics link to Websurfer, Naxal (Indo-Nepal Fibre)
- 2. Intranet Connection:** Nepal Research & Education Network (NREN) and its member/s
- 3. Internet Bandwidth:** 17 mbps Synchronous (2mbps for testing)

**Bandwidth Upgrade history (1024 kbps = 1 mbps)**

YEAR	ISP	Method	Month	Bandwidth (kbps)	
				Downlink	Uplink
2001	BTN Access, Singapore	VSAT	November	256	128
2003	BTN Access, Singapore	VSAT	June	512	160
2004	SinGTel, Sigapore (Mercantile)	VSAT	May	1024	384
2005	SinGTel, Sigapore (Mercantile)	VSAT	May	1152	384
2006	SinGTel, Sigapore (Mercantile)	VSAT	October	1536	512
2007	SinGTel, Sigapore (Mercantile)	VSAT	May	1536	512
2008	SinGTel, Sigapore (Mercantile)	VSAT	May	1920	640
2008	Websurfe, Naxal	Fibre	October	3072	3072
2009	Websurfe, Naxal	Fibre	July	3584	3584
2010	Websurfe, Naxal	Fibre	July	4096	4096
2010	Websurfe, Naxal	Fibre	August	6144	6144
2011	Websurfer+Mercantile	Fibre	July	11264	11264
*2012	Websurfer+Mercantile	Fibre	June	13312	13312
*2012	Websurfer+Mercantile	Fibre	July	17408	17408

\*From Mercantile 5 mbps free + Websurfer 12 (10 Dhulikhel, 2 Hatiban Complex-testing) mbps bandwidth =17mbps

**4. Bandwidth utilization:** 24 hours

**5. Media:**

**Router:** 8 **Switch:** 75

**LAN:** 10/100/1000 Mbps

**Optical Fiber:** Single mode

**UTP Cable:** Cat5e /Cat 6

**Manageable Switch:** 15

**Wireless LAN Router:** SpeedView, Trendnet, AirOS, D-link, TPlink, Buffalo & SMC

**6. Fibre connection in KU:**

- Building to Building in its premises
- Kathmandu University Teaching Hospital/Dhulikhel Hospital, Dhulikhel,
- Kathmandu University School of Medical Sciences, Chaukot,
- Kathmandu University High School, Chaukot.

**7. Topologies: Star & Extended Star**

**8. Number of computers connected to Network:** 900+

**9. Average number of internet users per day:** 1500+

**10. Intranet bandwidth:** 100Mbps