INSTITUTE COMPUTER ORIENTATION

Understanding the lifeline of insti...
Outline

- Address from Head CC
- People
- IITB Network
- Services & Facilities @ Insti
- TroubleShooting
- Linux & Open Source Softwares
- Windows
People

- Computer Center?
- Hands of CC
  - MLC
  - Department Sysads
  - Hostel Sysads
- CC Staff
  - Web, System, Networks...
- Vendors

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Administrative Structure
IITB NETWORK
Basic Info

- **What is a network?**
  - Set of interconnected computers

- **IITB Network (will undergo major Revamping)**
  - Internet Speed: 32 Mbps → 104 Mbps
  - Connectivity at Rooms: 100Mbps → 1 Gbps
  - 1 Gbps Optical Network Backbone → 10 Gbps
What kind of a Network does IITB have?

- Provides both Wired and Wireless connectivity.
- IITB’s network is segregated into the following:
  - Academic Section
  - Hostels
  - Residential Area
- Provides network to all Departments, Hostels, Administrative Sections, and the Residential Area.
- Gigabit connectivity to each department and hostel.
Network Terms & Settings

- **IP (Internet Protocol)**
  - Identification of a computer in a network.
  - IIT Bombay IP allocation scheme:
    - General Pattern: 10.xx.yy.zz
    - xx : Hostel Number
    - yy & zz will indicate your Room Number
    - zz is last 2 digits of your Room Number
    - yy is remaining part of Room Number
  
  Hostel 8, Room No. 54  : IP Address 10.8.0.54  
  Hostel 4, Room No. 270 : IP Address 10.4.2.70  

- Detailed Info:
  
  [http://web.iitb.ac.in/web/ip-allocation.php](http://web.iitb.ac.in/web/ip-allocation.php)
Network Terms & Settings

- **Subnet Mask**
  - 255.255.0.0

- **Gateways**
  - At Individual Hostel level:
  - General pattern: 10.xx.250.1
  - where xx: Hostel Number

- **DNS (Domain Name Server)**
  - Server that gives IP corresponding to a URL
  - 10.200.1.11
IITB Proxy Server (NETMON)

- Required to access anything outside the IIT campus, i.e. Internet.

- Internet browser connection settings:
  - Automatic: [http://www.cc.iitb.ac.in/autoproxy.pac](http://www.cc.iitb.ac.in/autoproxy.pac)
  - Manual: Server: netmon.iitb.ac.in
  - Manual: Port: 80
SERVICES & FACILITIES @ INSTI
LDAP

- LDAP – Light Weight Directory Access Protocol
- It is like a Institute Electronic Identity.
- Every student/staff gets an institute LDAP account on joining (e.g., 09D05004).
- User-id can be changed only once after 1st September.
- Please avoid selecting fancy uids like chunky007, buntythegreat ...
- Used in authentication on all services provided by the Institute.
Central Accounts Management Portal (CAMP)

- CAMP – [http://camp.iitb.ac.in/](http://camp.iitb.ac.in/)
- Used to modify, Password, UserID and Personal Details, of the LDAP account.
- Mail forwarding.
- Other LDAP account maintenance operations.
Institute Webmail (GPO)

- [http://gpo.iitb.ac.in](http://gpo.iitb.ac.in)
- Login: using institute LDAP id (e.g. 09D05004)
- Email address: `yourldapid@iitb.ac.in` (09D05004@iitb.ac.in)
- Inbox size: 1 GB
- Other Interfaces:
  - [http://imp.iitb.ac.in](http://imp.iitb.ac.in)
  - [http://iloha.iitb.ac.in/](http://iloha.iitb.ac.in/)
  - [http://hasty.iitb.ac.in](http://hasty.iitb.ac.in)
Institute Webmail (GPO)

- This service can also be accessed via Kmail, Pine, Thunderbird, Outlook Express etc. using:
  - IMAP Service.
    - [http://docs.iitb.ac.in/webmail.tutorial/imapfaq.html](http://docs.iitb.ac.in/webmail.tutorial/imapfaq.html)
- Mailing Lists – Used to send email to a particular group of users
  - [http://lists.iitb.ac.in](http://lists.iitb.ac.in)
  - Seminar, Programmers, Clubs, Matlab-users, etc.
- **Do NOT reply to any phishing mails**
  - Computer Center NEVER asks for your password
Storage Facility (BIGHOME)

- **URL:** bighome.iitb.ac.in
- **Storage Server**
  - Can store your data and access from anywhere within the institute
  - **Quota:** 500MB
  - **Access:**
    - FTP Clients
    - Mounting
- **For Instructions and Information:**
  - [http://www.cc.iitb.ac.in/faq/storagefaq.php](http://www.cc.iitb.ac.in/faq/storagefaq.php)
Personal Web Page

● Do the ftp login to 'bighome.iitb.ac.in' by using any ftp client
  • For Unix: gftp ; For Windows: any GUI FTP Tool
● Create 'public_html' folder in your homedir.
● Copy all web pages in public_html
● Change the permissions of both home directory and public_html directory to '755'. 'chmod 755'
  • Through ftp clients you can change the file permissions/attributes
● http://homepages.iitb.ac.in/~userid will be URL for your homepage.
IITB FTP Repository

- URL: ftp://ftp.iitb.ac.in
- Stores common open-source softwares.
- To save your time and network bandwidth
- Linux/FreeBSD distributions
  - Fedora, Mandrake Linux, Debian, Redhat, Mandriva, Knoppix, etc.
- Various other softwares
  - Oracle, Scilab, Java, SSH clients, MPlayer etc.
- Licensed Softwares:
  - Matlab, Mathematica, Techplot, ANSYS
MSDNAA

- IITB – Microsoft Developer Network Academic Alliance
- Allows access to Licensed Microsoft Software to students.

Visit for details:

http://msstore.iitb.ac.in/msdnaa/
ftp://msstore.iitb.ac.in/
Email: request.ms@iitb.ac.in
Wireless Networks & Newsgroups

- WiFi Networks available for use at major academic locations like MB, LT, SOM, Library etc.
- Proxy authentication required using LDAP
- For help in Configuration visit: http://www.cc.iitb.ac.in/wireless/index.php

Newsgroups:
- http://varta.iitb.ac.in/
- Use LDAP id and password to login
Other Useful Academic Services

- Application Software Cell (ASC)
  - URL: [http://asc.iitb.ac.in/](http://asc.iitb.ac.in/)
  - Academic Information and Management

- Moodle
  - URL: [http://moodle.iitb.ac.in/](http://moodle.iitb.ac.in/)
  - Academic Discussion Forum

- Online Fees Payment
  - [http://www.iitb.ac.in/onlinepay/](http://www.iitb.ac.in/onlinepay/)
Useful User IDs

- **Institute General Secretaries**
  - GS Hostels: gsecha@iitb.ac.in
  - GS Sports: gsecsports@iitb.ac.in
  - GS Cultural: gseccult@iitb.ac.in
  - GS Acad UG: gsecaaug@iitb.ac.in
  - GS Acad PG: gsecaapg@iitb.ac.in

- **Hostel Gsecs**: gsech**@iitb.ac.in
  **will the 2 digit hostel number.

- **Hostel System Administrators**: sysadh**@iitb.ac.in
  **will the 2 digit hostel number.
IT Usage and Fine Policy

- [http://www.cc.iitb.ac.in/cgi-bin/policy.cgi](http://www.cc.iitb.ac.in/cgi-bin/policy.cgi)
- Internet access is provided STRICTLY for academic use.
- Please avoid unethical browsing, downloads from the internet.
- Fine will be imposed in the following cases:
  - Excessive Downloads
  - Bombarding :- Internal (within campus network), External
  - Email Spamming.
  - Damage to CC Equipment by Hostel Inmates (Racks, Locks, Switches, etc)
IT Usage and Fine Policy

- Malicious Activities
  - Packet Sniffing
  - Hacking
  - Password Snooping (Stealing)

- [http://gymkhana.iitb.ac.in/~mlc/fine-policies.html](http://gymkhana.iitb.ac.in/~mlc/fine-policies.html)
Lan Ban

- In hostel rooms during 12am to 7am
- No Lan Ban during vacations!

Computer Rooms in Hostels

- 24x7 internet access
- Follow Comp Room Rules strictly
- Contact your sysad/comp secy in case of any problems
Vendor Facility

- CC has a contract with vendor for supply and maintenance of student’s and institute’s hardware and software
- According to rate contract available at CC site, new hardware can be bought.
TROUBLESHOOTING
Things to be done in case of a Network Problem

- Steps for checking physical connectivity:
  - Check if LEDs are glowing in the place where network cable is plugged into your PC.
  - If they are not, check if the cable is plugged properly. Remove and replug it at both ends. One end is in your computer and other is in the wall jack.
  - If LED's are glowing, go to next step. If they are still not glowing, please register complaint with your hostel comp secy / sysad.
Things to be done in case of a Network Problem

- If physical connectivity seems fine then go to the next section:
  - Check if your IP address, subnet mask, gateway and DNS entries are correct
  - Type the following command in command prompt/terminal for finding your IP on the machine:
    - On windows: "ipconfig". This command shows the machines IP address, subnet mask and gateway.
    - On Linux: Type "/sbin/ifconfig"
Things to be done in case of a Network Problem

- Try to ping few machines in your building using the command prompt/terminal. The command is: "ping x.x.x.x" where x.x.x.x is the IP address.
- If that succeeds, try to ping the Main switch of your hostel. The IP address of the switch will be 10.<hostel no>.250.1
- If all is done but still you are unable to connect to the network, please contact your hostel SysAd or Comp Secy
Whom to Contact?

- For networking issues:
  - Hostel or Department Sysads

- For other issues:
  - [http://help.cc.iitb.ac.in/](http://help.cc.iitb.ac.in/)
  - For urgent queries you can come to CC HelpDesk
    (SIC 101, KRESIT 4:30 pm - 5:30 pm Except Thu)
LINUX & OPEN SOURCE
LINUX

- Operating System just like Windows
- Robust, Stable, Open Source, Safe and Secure.
- No viruses – well almost true

- IIT Bombay encourages you to use Linux
  (Almost all labs use Linux Systems)
- Must attend Prabhat – A workshop on Linux
Distributions (DISTROS)

- Ubuntu
  - A Debian based distro. Currently quite popular in Linux world especially among newbie.

- Fedora
  - A product of Redhat.

- SuSE
  - Easy to use distro ideal for personal computers.

- Mandrake
  - Another distro for Linux newbie.

- Gentoo and Debian
  - For advanced users

- Knoppix
  - Run from a CD
  - No need to install
  - Best if you want to try
Open Source

Why use proprietary software when better alternative is available freely.

More Power

- The code is open and you can see it, use it, change it, learn from it and contribute to it WITHOUT ANY COST
- Evolved by efforts of thousands of developers worldwide, so caters to everyone’s problem

Linux and Other Open Source Software are owned by no one and freely available.
Open Source Software

- Mozilla Firefox – The dominant browser in insti. Much more friendly and powerful than IE and other browsers
- Mozilla Thunderbird – Email client
- Mplayer – Plays (almost) all the movie/audio files
- VLC – Another media player, better with streaming
- Gaim (now Pidgin) – Yahoo, Gtalk, MSN.. All messengers in one
- Amarok – Equivalent of iTunes, Window Media Player
Open Source Software

- Open office – Open Source community’s answer to MS office
- More techie: Apache, Java, GIMP, MySQL, PHP, vi, emacs, python, Notepad++, wamp, vnc, wireshark, dia, wordweb

- Most of them available for Windows as well
- Many add-ons available for these, e.g. for Firefox
Firefox
Thunderbird

Inbox for dhananjays@iitb.ac.in - Mozilla Thunderbird

- **CHANGE OF GPO ID**
  - Re. (Reminder. Meet me at 2 in C room in EE building) Re. Many....
  - kaushal.titanprajush@iitb.ac.in
  - 08/03/2007 01:08 AM

- **new sysid ids**
  - Tentative orientation outline
  - kaushal.titanprajush@iitb.ac.in
  - 08/03/2007 02:29 PM

- **failure notice**
  - Regarding Freshers' orientation
  - kaushal.titanprajush@iitb.ac.in
  - 08/03/2007 02:29 PM

- Subject: Welcome to the 'Programmers-club' mailing list
  From: programmers-club@iitb.ac.in
  Date: 08/04/2007 06:12 AM
  To: dhananjays@iitb.ac.in

Welcome to the Programmers-club@iitb.ac.in mailing list!

To post to this list, send your email to:

programmers-club@iitb.ac.in

General information about the mailing list is at:

http://lists.iitb.ac.in/mailman/listinfo/programmers-club

If you ever want to unsubscribe or change your options (eg, switch to or from digest mode, change your password, etc.), visit your subscription page at:

http://lists.iitb.ac.in/mailman/options/programmers-club/dhananjays@iitb.ac.in

You can also make such adjustments via email by sending a message to:

Programmers-club@iitb.ac.in
Gaim (Now Pidgin)
Amarok

Amarok - Mike Oldfield

Title | Artist | Album | Length
---|---|---|---
Get Your Snack On | Amon Tobin | Supermodified | 4:22
Four Ton Marquis | Amon Tobin | Supermodified | 4:45
Slowly | Amon Tobin | Supermodified | 5:37
Marine Machines | Amon Tobin | Supermodified | 5:45
Golfer v.K Boxer | Amon Tobin | Supermodified | 6:17
Deo | Amon Tobin | Supermodified | 6:44
Precursor (featuring Quadracorpo) | Amon Tobin | Supermodified | 4:39
Saboteur | Amon Tobin | Supermodified | 5:18
Chocolate Lovely | Amon Tobin | Supermodified | 6:03
Rhino Jockey | Amon Tobin | Supermodified | 7:28
Keepin' It Steel (The Anvil Track) | Amon Tobin | Supermodified | 4:29
Natureland | Amon Tobin | Supermodified | 5:48
Melissa Juice | Boards of Canada | Twoism | 1:32
05-triangles_and_thombuses | Boards of Canada | Music Has the Right to Chill... | 1:50
saturday's child | Brendan Perry | Eye of the Hunter | 4:31
medusa | Brendan Perry | Eye of the Hunter | 6:10
La Negra Tomasa | Compay Segundo | Las flores de la vida | 3:57
02_Afterlife - Dub in Ya Mind.mp3 | Compilation | Cafe Del Mar Volumes Seis | 5:14
The Girl Who Was...Death | Devil Doll | The Girl Who Was...Death | 66:06
Last Ninja - The Palace | Instant Remedy | Instant Remedy | 4:58
Amarok | Mike Oldfield | Islands | 6:02
The Wind Chimes Part One And Part Two | Mike Oldfield | Islands | 21:49
Islands | Mike Oldfield | Islands | 4:20
Flying Start | Mike Oldfield | Islands | 3:37
North Point | Mike Oldfield | Islands | 3:33
Magic Touch | Mike Oldfield | Islands | 4:14
The Time Has Come | Mike Oldfield | Islands | 3:55
When The Nights On Fire | Mike Oldfield | Islands | 6:40

Playing: Mike Oldfield - Amarok (6:02)
Windows

- A friendly operating system but with many trade-offs:
  - Less power
  - Less flexibility
  - Requires license. Free for IIT students 😊
  - Less Security 😞

- Security: Computers get infected by malicious software, virus etc. and try to spread across LAN.

- It is YOUR responsibility to secure your system and also not to harm other users knowingly or unknowingly
Firewall & Antivirus

Mandatory for Windows system to have a:
- Properly configured firewall
- Up-to-date, regularly running Antivirus
- Up-to-date Anti-Spyware

Firewall: Only allow those process to access the network whose function you know. DON’T allow any unfamiliar process
- Sygate, Zone-alarm (free firewalls)

Antivirus: Run update or manually update (at least twice a week) and run Complete Scan daily
- Norton, AVG (free edition), McAfee, Avast (freeware), Clam Win (freeware)
- Anti-Spyware bundled with Antivirus in many products
Possible Offences

- Bombarding – Flooding the network with many request at hostel or institute level, greatly slowing down the network for peers
- Email spam – Any spam launched manually or by virus attack
- Damage to CC equipment
- Malicious Activity
  - Packet Sniffing
  - Hacking
  - Password Snooping (Stealing)
- Read CC and MLC website for details
Important Links

- CC Website: http://www.cc.iitb.ac.in/
- Internal IITB WEB Server: http://web.iitb.ac.in/
- MLC Website: http://gymkhana.iitb.ac.in/~mlc/
Questions???

THANK YOU 😊

Udit Gupta
Sravan Kumar
Chirag Patel