What's inside ... 

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HARNET Internet Link Upgraded to 72 Mbps

Since August 2000, all the eight universities in HK have been sharing a 48 Mbps link to the Global Internet and a 60 Mbps link to the HKIX (for accessing HK sites), via the ISP Equant (formerly Global One).

To accommodate the increasing Internet access need for the coming year, capacity of the Global Internet link has been upgraded from 48 to **72 Mbps** on 18 July 2001. The capacity of the HKIX link remains at 60 Mbps.

To tap the increased Internet bandwidth, the local link from UST to Equant also had its capacity upgraded from 24 to **45 Mbps** on 1 September 2001.

The above upgrade enables more people to access the Internet at the same time without penalty in access speed, as well as faster Internet access speed.

The latest Internet configuration is shown below, and further details on current Internet connectivity information can be obtained [here](#):
Email fire-wall established

In order to protect email servers within campus from outside abuses (e.g. for sending unsolicited junk email messages to other Internet users), an Email Firewall was installed at the border of the campus network. This Email Firewall is equipped with latest Anti-Spam and Anti-Virus features, and is regarded as a very crucial component of the campus network security architecture.

Features of the Email Firewall

| Disallow Third Party Relay | • Does not support *third-party-relay*  
|                           | • Avoid hijack of unattended mail servers set up by users  
|                           | • Avoid email bombing from these unattended mail servers  
| Anti-Spam                  | • Reject messages originating from servers listed in the Mail Abuse Protection System’s Realtime Blackhole List (RBL)  
|                           | • Known Spam sites and spammer addresses will be downloaded regularly to Email Firewall  
| Anti-Virus                 | • Perform virus detection using reputable commercial anti-virus package  
|                           | • Reject email messages detected with known viruses and automatically notify the sender  
|                           | • Virus definition database on Email Firewall will be updated regularly  

For details on the Email Firewall, please refer to:

MobileNet Development Updates

Since the wireless MobileNet service was rolled out by ITSC in September 2000, a growing number of users are already making use of this handy service to access Internet in various public or open areas within campus. In view more users will be buying notebook computers and wireless network adapters from this year’s computer ownership program, ITSC has continued our efforts to further improve our MobileNet service in two major areas:

Extended Wireless MobileNet Coverage

The following areas are provided with enhanced or new wireless MobileNet service in the new academic year:

- **Library** - Library continues to be the most favored locations for wireless MobileNet access. In order to provide better reception signals in our library, 5 more wireless access points will be installed by mid-September. A total of 13 access points will then provide good signal coverage for all library seating areas except some blind spots.

- **University Center** - By end of September, wireless MobileNet service will be extended to the University Center. Initially 2 wireless access points will be installed there to serve UC Bistro, Quiet Lounge, Staff Lounge, and Multi-purpose Hall.

- **Computer Barns** - Now all 3 computer barns (A, B & C) have wireless MobileNet access.

- **Lecture Theaters** - Wireless MobileNet access is now extended to the biggest 4 lecture theaters, i.e. LT A, B, C & D.

Details of the coverage areas can be found in the MobileNet home page. You are welcome to send in your suggestions on other locations to where we should consider extending this service.
Simplified MobileNet Authentication Process

In the past, MobileNet users must pre-load and install an authentication client before accessing MobileNet. The setup of this client may sound inconvenient to some users. Now an alternative simplified authentication method is introduced by making use of a Telnet session for authentication. For further details, please refer to our MobileNet home page at:

http://www.ust.hk/itsc/MobileNet/
Completion of Proxy Service Upgrade

Stage-wise deployment of web proxy service to transparent proxy has been completed in summer 2001. Advantages thus gained include:

- Higher availability
- Faster graphics (benefit brought by bigger web cache)
- Consistent response time
- Total user transparency

To enjoy all of the above benefits, please remove your browser's proxy setting accordingly. Click here to see the removal steps for your browser version.
Software distribution - HKUST Download service

ITSC is pleased to announce that a new and dedicated server has been set up for users to download application software for Microsoft Windows platform.

HKUST members can simply use their ITSC network account to authenticate themselves and they will get a list of application software eligible for use. In addition, there are Windows System Updates, Common Device Drivers and pointers to other popular download sites.

To access the service, please visit the following URL:

http://download.ust.hk/
More projectors installed in compact IT classrooms

To cope with the growing needs for video projection in lecture presentations, ITSC has installed more video projectors in medium size classrooms, to make them "Compact IT classroom". The alteration is actually a small scale of a full IT classroom, but the cost is only 20%. Commencing from the Fall Semester, there are seven such Compact IT classrooms ready for use. They are located at:

- second floor: room 2304, 2404, 2406, 2502; and
- third floor: room 3301, 3401, 3412.

Each Compact IT classroom is equipped with

- Video Projector - 1,200 ANSI lumen, XGA resolution;
- AV Source Selection and Control panel to facilitate the video projection of PC notebook or other video source;
- Loud speakers for audio playback of multi-media presentations.

There are totally ten Compact IT classrooms; another three of them will be ready by next semester.

For details about AV facilities installed in Lecture Theaters and classrooms, please refer to the following link:

http://www.ust.hk/itsc/av/
UST Web sites Search Engine upgrade

In the coming months, the central Search Engine will be upgraded, using latest technologies from SunTEK (winner of 2 awards in Hong Kong Web Award 2000), to enhance better bilingual information searching over the campus web infrastructure.

Key features of the SunTEK’s Search Engine include:

- Support of both Chinese and English search keywords in the same query
- Conversion of the searched web page from Traditional Chinese to Simplified Chinese or vice versa

Latest information about the central Search Engine will be made available at:

http://www.ust.hk/itsc/search/
iMail Service extended to Undergraduates

Since 1999, a high performance dedicated email server has been setup to provide email supports for staff/ postgraduate users to cope with heavy use of email messaging. This is code named "HKUST iMail Service". Starting from the August 2001, the iMail service has been extended to newly admitted undergraduates.

With the HKUST iMail Service, user can access the Email Add-on Service directly on the web:

- Email Address Redirection
- Auto-reply (vacation) Message
- Mailbox Usage Check

The HKUST iMail server will be further extended to undergraduates who are admitted before August 2001. Options migrating to iMail Service will be announced in due course.

For more information, please refer to:

http://www.ust.hk/itsc/email/imail/ug.html
HKUST's New Telephone Service Provider - New T&T

In June, the Sub-Tender board appointed New T&T as the new telephone service provider for HKUST. In replacing PCCW HKT, New T&T will render telephone service to UST’s telephone lines (fax/direct lines in office academic building) with a special offered rate that is much lower than the rate previously offered by PCCW HKT. This would actually attain a big cost saving of around $200K over 24 months, which is approx 30% less than our current charge by PCCW HKT.

To the users, the migration to New T&T was transparent with all existing telephone numbers in use remain unchanged. The migration of the PABX internal lines to the new service provider was carried out over three phases:

- 1st phase - migrating half of the outgoing lines
- 2nd phase - migrating the remaining outgoing lines
- 3rd phase - migrating all incoming lines

The migration was successfully completed by the end of July.

To enable the additional around 200 fax and direct lines to enjoy the same special offered rate, ITSC helped to coordinate a "batch subscription" in early July for the New T&T service. New T&T is now undergoing the wiring work on such lines and on completion, such lines would too enjoy the special rate.
What's New in the Computer Barns

To welcome the new academic year 2001/02, a series of enhancements have been made over summer in the ITSC Computer Barns. The following lists them.

Hardware Upgrades...

PCs

After a battle with the PC vendors to press for a good price, a large-scale PC upgrade was carried out across May and June in the Computer Barns. All the PCs (~300 units) in the three Computer Barns were upgraded to:

- Pentium III - 1Ghz
- 256 MB Memory
- 40G GB Hard Disk

This should well cater the nowadays resource crunching Operating System and applications.

So where would the old PCs go? One may be curious to ask this question. All of the swapped out PCs will be made for good use; being redeployed to the University Administration Offices, replacing their older model of PCs.

Express Terminal Monitors

The old Monitors on the 20 units of the Express Terminals in the three computer barns have finally retired from their long service. New 17” monitors have now replaced them, with better display and comfort to the eyes.

Printers

Goodbye to the 18 units of HP LaserJet 4Si and 5Si printer. After continuous long service, meeting with the high usage needs in the computer barns, they're no longer able to sustain the high usage demand in the barns, with frequent paper jam and printing problems. These printers have now replaced by new HP LaserJet 8150
heavy-duty printers, especially designed to cater heavy usage printing environments like ours.

After being in service for almost 4 years, the first ever launched color printer in the Computer Barns - HP Color LaserJet 5M (located in Computer Barn A) had to retire after being declared un-repairable. To replace this color printer, the HP Color LaserJet 8500 from Computer Barn B has been relocated to Computer Barn A, whilst a new HP Color LaserJet 8550N printer has been installed in Computer Barn B.

**Software Upgrades...**

**Operating System Upgrade**

It has been one year now since Microsoft Windows 2000 was made available in the Computer Barns. With its improved performance, reliability, multi-language support and enhanced multimedia support, all PCs in the Computer Barns (except Barn A's teaching area, which needs to cater special teaching requirements) have been migrated to the Windows 2000 environment.

Furthermore, with better native smartcard and PKI (Public Key Infrastructure) support, this establishes a "smartcard ready" computing environment in the Computer Barns, ready for the forthcoming Campus Cards.

**Environment Changes...**

**Silent Working Area**

In meeting with the needs of some students for a quiet working area, the Computer Barn A's working area is currently operating under trial as a "Silent Working Area". Students who need to work as a group or need to have discussions with colleagues whilst working on the computers, are advised to use the other computer barns.

**Student Consultant's uniform**

The color of student consultant's uniform has been changed from purple to the more eye-catching red. Users in the computer barn can locate them for help much more easier.
Intellectual Property Ordinance in effect

Starting on the April 1 2001, the Intellectual Property (Miscellaneous Amendments) Ordinance 2000 becomes effective. Under this ordinance, the use of pirated software in business is a criminal offence.

It is always our University’s policy not to use pirated software. Therefore, ITSC has been acting proactively to convey this message to the University community. In particular, we have

- sent out emails to all staffs and students reminding them about the new ordinance, and not to use improperly licensed software
- contacted the system staff of different academic departments, reminding them to check the software in their computing labs
- explained the concepts of the new ordinance to the Computer First Aid Officer of A&B branch departments
- double checked our software installed in the Computer Barns is properly licensed;
- revised the procedure for software media loan in our loan counter, to ensure the users are aware of the license terms.

To know more about the Ordinance, you may refer to FAQ web page of the Intellectual Property Department of the HKSAR Government at:

- [http://www.info.gov.hk/cib/ehtml/copyright_e.htm](http://www.info.gov.hk/cib/ehtml/copyright_e.htm) (English version)
Computer First-Aid Officer (CFO) Training Program 2001

The Computer First-Aid Officer (CFO) Program has been launched and running in Administrative Offices for over two years now. The first batch of certified CFOs was back in July 1999. Across time, the CFOs have developed useful skills and expertise in handling general computing problems, and have been able to assist their office colleagues independently.

To further extend the CFO network, and develop more staff in the Administrative offices to provide a helping hand to their office colleagues, a second round of CFO Training Program was held over this summer. Twenty-four colleagues were nominated this time and together with the existing CFOs, this brings to a total of over 50 CFOs spreading across the Administrative offices.

An intensive five full days training was arranged for the new CFOs, spreading across two weeks in summer (31st July - 10th August). The training was targeted to provide information on solving the day-to-day practical computing problems, as well as to be fun. I was deeply fascinated and impressed by the attendee's enthusiasm of participation and the teamwork involved in the workshop sessions.

The training topics covered are:

- Introduction to CFO Program
- Hardware Concepts
- PC Purchase / Installation
- English Windows 98
- Chinese Windows 98
- Awareness of Software Copyrights
- Installation & Configuration for Standard Applications
- Virus
- Email Services
- Printing
- Common PC Problems
- PC & Printer Relocation

We thank you for the continual support from offices on this program and the enthusiasm of the CFOs, which led to a great success to this program.
HKUST Notebook/Desktop Ownership Program 2001

Same as last two years, the ITSC has organized in the new academic year a computer ownership program for the university community. The program is worked out based on the feedback of the May online survey, and with the support from the Students' Union and Purchasing Office.

We have finally selected among prospective vendors the more attractive proposal from IBM/System-Pro. IBM ThinkPad notebooks, NetVista desktop computers and WorkPad handheld PDA are available at an attractive price to all HKUST students, staff and alumni. Departmental purchase through this program is also allowed. A similar program in last year was well received with over 1,400 ThinkPad notebook computers sold.

A choice of 6 latest notebook models (from around $6,800 to $15,900) and 3 desktop models (from below $5,400 to around $9,000) are available for your selection. You can enjoy an effective discount (off retail price) of up to around 40% for notebook models and around 15% for desktop models. For this limited-time special offer, each eligible person is ONLY allowed to buy at most one notebook and one desktop computer. An optional 12-month instalment plan is also arranged for your convenience.

Now that mobile wireless Internet access are available in public areas (like library, canteens, coffee shop, academic concourse), the program also includes the choice of specially priced 11 Mbps wireless adapters for notebook users.

For further details, please visit our program's home page at:

http://www.ust.hk/itsc/cop/
Summary Findings of Notebook/Desktop Ownership Program Online Survey

Back in end of May this year the ITSC has conducted an online survey to solicit feedback from students and staff on their purchase requirements on notebook and desktop computers. We received a total of 1,018 responses -- 163 from staff and 855 from students. The survey findings serves as a useful reference for the organising task force to plan for the upcoming HKUST Notebook/Desktop Ownership Program 2001. Presented below is a brief summary of the major findings out of this survey:

- **Preferred Notebook Type** - around 60% of the respondents preferred slim notebooks to all-in-one notebooks:

  *Slim vs. All-in-one: 60% vs. 40% (for staff) and 64% vs. 36% (for students)*

- **Preferred Brand Name** - similar to last year, the majority of staff (over 46%) and students (over 52%) regard Sony as their most preferred notebook brand name. For desktops, our users are more willing to buy clone instead of branded system.

<table>
<thead>
<tr>
<th>Most Preferred</th>
<th>Notebook</th>
<th>Desktop</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students</td>
<td>Staff</td>
</tr>
<tr>
<td>Sony</td>
<td>IBM</td>
<td>Dell</td>
</tr>
<tr>
<td>IBM</td>
<td>Toshiba</td>
<td>IBM</td>
</tr>
<tr>
<td>Dell</td>
<td>Toshiba</td>
<td>IBM</td>
</tr>
<tr>
<td>Toshiba</td>
<td>Dell</td>
<td>Compaq</td>
</tr>
<tr>
<td>Compaq</td>
<td>Compaq</td>
<td>HP</td>
</tr>
<tr>
<td></td>
<td>Gateway</td>
<td>HP</td>
</tr>
</tbody>
</table>

**Remarks**: Though Sony is generally regarded by both students and staff as the most preferred notebook brand name, Sony could only offer us relatively much lower discount level to their high-priced notebook models.
• **Choice of Operating System** - the majority of users prefer Windows 2000, and in general our students prefer Chinese over English Windows operating system:

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Notebook</th>
<th></th>
<th>Desktop</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students</td>
<td>Staff</td>
<td>Students</td>
<td>Staff</td>
</tr>
<tr>
<td>English Win98</td>
<td>4.9%</td>
<td>13.2%</td>
<td>1.2%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Chinese Win98</td>
<td>13.3%</td>
<td>9.9%</td>
<td>13.7%</td>
<td>6.9%</td>
</tr>
<tr>
<td>English WinME</td>
<td>4.9%</td>
<td>7.4%</td>
<td>4.6%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Chinese WinME</td>
<td>22.3%</td>
<td>20.7%</td>
<td>26.6%</td>
<td>24.1%</td>
</tr>
<tr>
<td>Win2000</td>
<td>50.4%</td>
<td>41.3%</td>
<td>48.5%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Linux</td>
<td>3.0%</td>
<td>2.5%</td>
<td>2.5%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Others</td>
<td>1.2%</td>
<td>5.0%</td>
<td>2.9%</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

• **System Configuration:**

  - **Processor** - users tend to prefer Intel over AMD processors, and for Intel CPUs, the majority favors Pentium III processors for notebook and Pentium 4 processors for desktop.
  - **Memory** - 128 MB (student) and 256 MB (staff) is the *norm* for notebook system; and for desktop system, most users prefer 256 MB memory.
  - **Hard Disk Size** - in general respondents prefers big hard disk: 15 GB or above for notebooks and 40 GB or above for desktops.
  - **Notebook Specific Attributes:**
    - **LCD Display Size** - a preference of 12.1", 13.3" or 14.1" over smaller screen size
    - **Thickness** - 0.9"-1.1" and 1.1"-1.3" are the two most popular ranges
    - **Weight** - notebook with a weight of 3-4 lbs seems most acceptable to the users

<table>
<thead>
<tr>
<th>Weight</th>
<th>Students</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 3 lbs</td>
<td>29.1%</td>
<td>28.2%</td>
</tr>
<tr>
<td>3-4 lbs</td>
<td>45.3%</td>
<td>36.4%</td>
</tr>
<tr>
<td>4-5 lbs</td>
<td>22.9%</td>
<td>29.1%</td>
</tr>
</tbody>
</table>
5 lbs or above | 2.7% | 6.3%

- **General Selection Criteria of Notebook Computers** - the majority of staff and students regard the following as more crucial in notebook selection (*in order of decreasing importance*):
  - Faster processor speed
  - Slimmer dimension
  - Lighter weight
  - Larger memory size
  - Bigger LCD display
The Hong Kong Post offers free "e-cert" to UST staff and students

ITSC is pleased to announce that Hongkong Post is kindly offering free e-Cert (Personal) to members of HKUST for the first year.

Hongkong Post is the first recognized public Certification Authority (CA) in Hong Kong responsible for issuing and managing digital certificates. With Hongkong Post e-Cert, you can conduct on-line e-government services, Internet stock trading and Internet banking services in a secure and reliable manner. For your information, Hongkong Post is right now charging a yearly fee of HK$50 for an e-Cert.

Hongkong Post had already conducted the first round of registration on campus in mid-August and received e-Cert applications from more than 600 University members. A second round of registration will be conducted in early September. Namely, Hongkong Post will set up a promotion booth in the Academic Concourse to conduct face-to-face authentication and collect the application forms again, during:

3-8 September (Mon-Sat) from 9:00 am to 5:00 pm

Interested student/staff please bring along with you your Hong Kong Identity Card and Student/Staff Card and visit the booth during the above period. You may refer to the following for more details:

http://www.ust.hk/itsc/pki/hkpost/eCert.doc
Special Broadband Internet Service Plan from HKNET

ITSC has worked out a special package from HKNET which offers discounted 1.5M broadband Internet access service to all current HKUST staff and students. HKNET resells the broadband ADSL service provided by Pacific Century CyberWorks (PCCW), and as such, it has a service coverage of over 95% of Hong Kong households. At present HKNET has its own international Internet bandwidth of over 173 Mbps.

Three unlimited broadband service plans are offered to HKUST under this limited-time special offer (valid for sign-up at the promotion booth from Sep 5-8). For applications after Sep 8, please refer to another HKNET offer here.

<table>
<thead>
<tr>
<th>Terms</th>
<th>Standard Unlimited Plan</th>
<th>HKUST Student Plan A</th>
<th>HKUST Student Plan B</th>
<th>HKUST Staff Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Fee</td>
<td>HK$278</td>
<td>HK$148 (first 3 months) HK$228 (afterwards)</td>
<td>HK$198</td>
<td>HK$178 (first 3 months) HK$268 (afterwards)</td>
</tr>
<tr>
<td>Usage Hours</td>
<td>Unlimited</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free Storage</td>
<td>8 MB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Storage Charge</td>
<td>HK$20 / MB / month</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADSL Modem Rental Fee (DIY Self Installation)</td>
<td>HK$250</td>
<td>Waived **</td>
<td>Required to pay $500 to buy the ADSL modem</td>
<td>Waived **</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>--------</td>
<td>-----------</td>
<td>---------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Optional On-site Installation Fee</strong></td>
<td></td>
<td></td>
<td>HK$350</td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:**

** This offer is only applicable to areas covered by Self Installation Broadband package. Note that due to technical reasons, some customer sites do NOT support DIY self-installation and thus on-site installation service of ADSL modem must be subscribed at a fee of $330.

*** No contract signing is required, and users can terminate the service at any time with 1-month advance notice.

For further details, please refer to the following web page: