

# **Information Technology Services - Medicine**

## **Monthly Report**

### **January 1998**

#### **Highlights and milestones**

- ITS-Med conducted its first performance evaluation.
- The 1997 Hardware Inventory was completed. There are 6820 desktop, laptop, and workstation computers in use at the Schools of Medicine and Nursing. Overall, 38% of the machines are Apples; however Apple purchases declined by 32% in 1997 compared to the previous two years.
- Academic Computing designed a new cross campus course on computational analysis of biological information that is being offered this spring.
- The Remedy/Billing Clean-up project has begun and will be completed by June.
- ITS-Med Office Managers have begun biweekly meetings.
- Administrative Systems began testing Kronos time clocks to prepare for the conversion from ScanTime to Kronos.
- Administrative Systems implemented the key security system Custodial Services.
- MacAcademy has been contracted to provide two days of Macintosh training to Client Support in March.
- A pilot of the proposed IT Partners program, bringing department staff into Desktop Support training to improve support, has begun with the Child Study Center and the School of Nursing.
- A pilot of Microsoft's desktop management software, SMS, is underway.
- Technology Evaluation and Planning completed documentation for the new method of Access to Lab Medicine.
- Client Support resolved 94% of calls to the Help Desk in January. Calls that do not get resolved within the two-week turnaround time are primarily orders for new services and billing problems (only 74% of each type were resolved in two weeks).

# Information Technology-Medicine Monthly Report

January-98

## Applications

<u>Type of application</u>	<u>this month</u>	<u>Jan-97</u>	<u>% change</u>
AS/400 applications	10,249	-	-
CINAHL	584	393	49%
Core Biomedical Collection	1,023	878	17%
Clinical Reporting System (CRS)	595	-	-
accesses per user per month	8	-	-
Current Contents	3,592	4,489	-20%
Electronic mail (# messages sent)*	788,285	621,590	27%
messages per user per day	4.0	3.9	3%
HealthSTAR	624	313	99%
MEDLINE	18,931	18,307	3%
searches per active user per mon	8.2	7.9	3%
Medical Center World Wide Web			
Medical Center home page	60,355	28,326	113%
Hospital home page	2,107	1,205	75%
School of Medicine home page	9,640	5,229	84%
Medical Library home page	17,154	10,032	71%

## Background information

Personal computers as of 12/97	2,200
Electronic mail users as of 7/97	1,000
Networked computers as of 9/97	1,575
Full-time faculty, 1997-98	-
Medical & graduate students, 1997-98	-
Residents & postdocs, 1997-98	440
Full-time staff, 1997-98	3,526
Nursing staff, 1997-98	1,659
Number of beds, 1997-98	900

## Schools of Hospital Medicine & Nursing

2,200	6,800
1,000	5,492
1,575	3,343
-	1,278
-	3,170
440	1,127
3,526	2,267
1,659	-
900	-

## System outages

None reported.

\*Usage for email.med.yale.edu and estimated usage within MS Mail post offices was added to total usage as of 8/97.

<b>Help Desk</b>	<b>change from</b>		<b>Type of call</b>	<b># of calls change from</b>		<b>resolved by Help Desk change from</b>		<b>resolved next day change from</b>	
	<u>this month</u>	<u>last month</u>		<u>this month</u>	<u>last month</u>	<u>this month</u>	<u>last month</u>	<u>this month</u>	<u>last month</u>
Total calls	3,155	35%	New order	473	33%	20%	-46%	25%	0%
Calls resolved	94%	1%	Network	400	22%	96%	16%	99%	10%
Calls per day	150	9%	PC/printer	439	21%	61%	0%	82%	-4%
% of ITS-Med clients using Help I	36%	16%	Info	457	44%	72%	-27%	85%	-14%
# of callers	1,416	28%	Call transfer	321	28%	99%	0%	100%	0%
# of Yale affiliates using Web page	640	0%	Status queries	154	28%	86%	-11%	91%	-7%
			Email/Scheduli	275	40%	97%	9%	95%	2%
			Admin systems	89	65%	51%	-15%	83%	-11%
			Billing	66	136%	44%	-30%	45%	5%

## Network installations

	<b>change from</b>		<b>NetMenu workstations</b>	<b>Library NetMenu</b>			<b>Hospital NetMenu</b>		
	<u>this month</u>	<u>last month</u>		<b># of connections</b>			<b># of connections</b>		
			<u>Type of application</u>	<u>this month</u>	<u>Jan-97</u>	<u>% change</u>	<u>this month</u>	<u>Jan-97</u>	<u>% change</u>
# of new orders	62	-13%	Medical Education	1,887	3,233	-42%	-	-	-
# completed	39	-42%	Bibliographic databases & sea	6,807	8,325	-18%	1,071	1,794	-40%
# open orders	68	15%	Full text & factual databases	184	374	-51%	1,841	2,101	-12%
waiting for Telecomm	25	257%	Grant & research information	1	33	-97%	-	-	-
waiting for Desktop Support	43	-17%	Clinical assistance	12	21	-43%	0	37	-100%
median days from order to install	44	61%	Email/news/networks	24,584	22,686	8%	11,558	8,706	33%
days for Telecom install	6	-8%	Word processing & utilities	0	457	-100%	1,291	1,437	-10%
days for Desktop Support install	35	73%	Hospital information systems	-	-	-	22,980	23,173	-1%
			Procedure recorders	-	-	-	39	291	-87%
			<b>Total</b>	<b>33,475</b>	<b>35,129</b>	<b>-5%</b>	<b>38,780</b>	<b>37,539</b>	<b>3%</b>
			connections per workstation	1,288	1,351	-5%	373	431	-14%

# Overall usage for selected databases

	<u>Dec-96</u>	<u>Jan-97</u>	<u>Feb-97</u>	<u>Mar-97</u>	<u>Apr-97</u>	<u>May-97</u>	<u>Jun-97</u>	<u>Jul-97</u>	<u>Aug-97</u>	<u>Sep-97</u>	<u>Oct-97</u>	<u>Nov-97</u>	<u>Dec-97</u>	<u>Jan-98</u>
<b>Summary</b>														
AS/400 applications	-	-	-	-	-	-	-	11,815	8,173	10,164	10,696	8,299	7,127	10,249
Clinical Reporting System (C	348	633	742	572	730	620	551	490	495	597	578	516	484	595
Current Contents*	2,937	4,489	3,886	3,931	3,165	3,922	3,173	3,777	3,181	4,817	3,458	3,605	3,194	3,592
OVID databases	13,296	18,307	17,329	17,053	18,577	16,467	15,948	17,333	14,301	17,676	18,707	17,768	14,468	18,931
Medical Center Web server	347,928	431,339	459,226	543,310	623,284	654,313	604,198	682,546	705,680	768,257	921,490	827,327	733,452	954,720
Electronic mail messages ser	422,342	621,590	595,748	564,961	572,553	464,333	364,215	384,559	546,536	690,176	866,832	764,292	667,759	788,285

## Details: AS/400 applications

Animal Care and Use Committ	-	-	-	-	-	-	-	142	107	90	117	78	41	93
Business Management Systems	-	-	-	-	-	-	-	13	64	81	84	73	56	84
Clinical G/L Interface	-	-	-	-	-	-	-	-	4	15	9	6	9	7
Clinical Information	-	-	-	-	-	-	-	26	3	1	4	6	1	7
Clinical Information - Reports	-	-	-	-	-	-	-	-	-	5	5	2	2	3
Diagnostic Laboratory	-	-	-	-	-	-	-	379	174	298	281	297	194	226
Graduate and Continuing Educ:	-	-	-	-	-	-	-	-	46	66	64	49	52	60
Grants and Contracts	-	-	-	-	-	-	-	92	225	324	389	315	311	402
Grants and Contracts - Reports	-	-	-	-	-	-	-	-	38	83	19	57	37	59
Human Investigation Committe	-	-	-	-	-	-	-	-	74	109	84	93	70	75
Human Resources (CHR) - Inq	-	-	-	-	-	-	-	-	106	88	69	76	49	38
Human Resources (CHR) - Merit	-	-	-	-	-	-	-	-	62	51	21	43	15	45
Human Resources (CHR) - Rej	-	-	-	-	-	-	-	-	4	11	-	5	4	6
Human Resources - General	-	-	-	-	-	-	-	-	58	61	107	83	80	94
Human Resources - Inquiry	-	-	-	-	-	-	-	-	2,029	2,525	2,805	2,157	1,890	2,806
Human Resources - Profiles	-	-	-	-	-	-	-	-	3,641	4,325	4,975	3,376	3,185	4,820
Human Resources - Reports	-	-	-	-	-	-	-	-	140	179	218	231	140	312
Internal Medicine	-	-	-	-	-	-	-	-	12	34	36	53	90	74
MED5 - Reports	-	-	-	-	-	-	-	-	6	2	3	11	0	1
Physician Associates Program	-	-	-	-	-	-	-	-	-	-	3	47	43	27
Space Inventory System	-	-	-	-	-	-	-	82	232	264	66	61	45	41
Student Research	-	-	-	-	-	-	-	-	1	28	50	4	3	43
Student Systems	-	-	-	-	-	-	-	-	481	518	524	502	373	404
Support Services	-	-	-	-	-	-	-	408	216	233	151	177	78	93
System Administration	-	-	-	-	-	-	-	-	317	450	270	242	100	128
Yale Animal Resource Center	-	-	-	-	-	-	-	48	99	310	318	252	234	259
Other/Miscellaneous	-	-	-	-	-	-	-	7,330	34	13	24	3	25	42

## Details: Current Contents

<b>Current Contents total</b>	<b>2,937</b>	<b>4,489</b>	<b>3,886</b>	<b>3,931</b>	<b>3,165</b>	<b>3,922</b>	<b>3,173</b>	<b>3,777</b>	<b>3,181</b>	<b>4,817</b>	<b>3,458</b>	<b>3,605</b>	<b>3,194</b>	<b>3,592</b>
Ovid version	1,633	2,413	2,181	2,227	2,372	2,410	2,082	2,270	2,050	2,586	2,386	2,197	1,786	2,187
Basis version, automatic searc	1,108	1,787	1,476	1,483	756	1,512	1,091	1,507	1,131	2,231	1,072	1,408	1,408	1,405

## Details: Electronic mail

<b>Electronic mail total*</b>	<b>422,342</b>	<b>621,590</b>	<b>595,748</b>	<b>564,961</b>	<b>572,553</b>	<b>464,333</b>	<b>364,215</b>	<b>384,559</b>	<b>546,536</b>	<b>690,176</b>	<b>866,832</b>	<b>764,292</b>	<b>667,759</b>	<b>788,285</b>
PMDF	422,342	621,590	595,748	564,961	572,553	464,333	364,215	384,559	430,538	566,019	678,025	606,806	506,077	570,473
email.med.yale.edu	-	-	-	-	-	-	-	-	115,998	124,157	188,807	157,486	161,682	217,812

\*Usage for email.med.yale.edu and estimated usage within MS Mail post offices was added to total usage as of 8/97.

## Details: OVID

1966-75 search sets	3,823	5,349	5,818	5,752	5,530	5,545	4,678	5,165	3,646	5,213	4,577	4,042	2,883	3,407
1976-85 search sets	15,755	20,618	21,255	22,001	21,843	22,084	17,707	20,593	17,346	18,059	18,191	15,676	11,868	15,733
1986-89 search sets	23,185	31,520	29,664	30,687	29,999	30,913	29,454	31,317	26,603	29,891	29,134	25,355	18,805	23,776
1990-present search sets	76,264	102,575	105,377	96,592	99,365	107,291	104,569	115,069	95,855	112,850	115,640	153,125	125,083	153,893
Core Biomedical Collection sea	1,912	2,197	1,841	1,960	2,152	1,737	1,818	1,249	1,436	3,021	2,386	2,546	1,867	1,023
HealthStar search sets	2,129	2,301	4,321	2,247	3,502	2,843	1,825	1,514	1,215	2,754	2,864	2,287	1,812	4,229
nursing search sets	1,972	2,904	3,645	2,703	3,175	2,740	2,596	2,358	1,592	3,120	4,208	5,645	1,656	3,159
access method: telnet sessions	11,725	15,781	14,668	13,785	14,558	12,716	11,825	12,688	10,283	12,412	12,453	11,007	8,985	11,239
access method: Web sessions	1,381	2,325	2,231	2,900	3,672	3,471	3,847	4,323	3,731	4,864	5,863	6,503	5,205	7,367
access method: Z39.50	-	215	434	363	323	284	280	327	296	407	396	261	283	331

# Medical Center Web usage report, January 1998

## Top 10 pages accessed by Yale users

<u>this year</u>	<u>last year</u>
Medical Center	Medical Center
Medical Library	Medical Library
MedMenu	School of Medicine
School of Medicine	MedMenu
Student course evaluations	Desktop Support
Desktop Support	Medical Library's Internet search page
Medical Library's Internet search page	IDX project
Server search	Student course evaluations
Academic departments page	Find a person
Find a person (CSO directory, etc.)	Academic departments page

## Top 10 pages accessed by external users

<u>this year</u>	<u>last year</u>
Center for Advanced Instructional Media	Center for Advanced Instructional Med
Medical Center page	Medical Center page
School of Medicine	School of Medicine
Server search	Server search
School of Medicine's admissions viewbook	Medical Library
Medical Library	School of Medicine's admissions viewb
Child Study Center's Autism page	Child Study Center's Autism page
Medical Library's Selected Internet Resources database	Academic departments page
Yale-New Haven Hospital	Medical Library's Selected Internet Res
Emerging Infections Information Network (EPH)	Yale-New Haven Hospital

	<u>Jan-98</u>	<u>Jan-97</u>	<u>% change</u>
<b>Server total</b>	<b>954,720</b>	<b>431,339</b>	<b>121%</b>
<b>Who connected</b>			
Yale	267,845	158,053	69%
other US educational institutions	88,891	43,328	105%
US government & military	8,078	3,533	129%
US commercial institutions	198,628	62,225	219%
US non-profit organizations	8,088	2,986	171%
Major online service providers	101,138	35,954	181%
International	124,936	48,716	156%
<b># of unique hosts connecting</b>	<b>81,938</b>	<b>46,516</b>	<b>76%</b>
<b>Medical Center</b>	<b>60,355</b>	<b>40,094</b>	<b>51%</b>
<b>Yale-New Haven Hospital</b>	<b>2,107</b>	<b>1,573</b>	<b>34%</b>
<b>School of Medicine</b>	<b>9,640</b>	<b>7,703</b>	<b>25%</b>
<b>School of Nursing</b>	<b>1,128</b>	<b>690</b>	<b>63%</b>
<b>Major resources</b>			
Admissions, School of Medicine*	-	-	-
School's organizational chart	42	45	-7%
Computing page	852	483	76%
Core research facilities page	248	157	58%
Education page	220	435	-49%
Emerging Infections Information Network	2,491	1,996	25%
Find a person	1,970	-	-
Find a physician	851	-	-
Medical Library	17,154	13,288	29%
MedMenu	???	3305	-
Mission: Community Service	217	-	-
Mission: Education	744	-	-
Mission: Patient Care	308	-	-
Mission: Research	1,112	-	-
Scientific Affairs and Grant & Contrac Adm	1,251	1,467	-15%
Yale Faculty Practice	661	338	96%
<b>Service departments</b>			
Biomedical Communications	427	347	23%
C/AIM	2,299	4,628	-50%
Center for Cell Imaging	547	403	36%
Copy Center	99	-	-
Desktop Support	2,169	1,501	45%
Help Desk	164	-	-
Systems Support	316	175	81%

\*The application was converted to an Oracle-based application in May 1997. It is disabled from November - May.

	<u>Jan-98</u>	<u>Jan-97</u>	<u>% change</u>
<b>Academic Departments**</b>			
Anesthesiology	418	359	16%
BBS	766	-	-
Boyer Center for Molecular Medicine	715	676	6%
Cancer Center	771	575	34%
Cell Biology	824	551	50%
Cellular & Molecular Physiology	347	237	46%
Child Study Center	815	298	173%
Comparative Medicine	152	66	130%
Dermatology	781	566	38%
Diagnostic Radiology	787	789	0%
Epidemiology & Public Health	2,374	1484	60%
Genetics	1,478	402	268%
History of Medicine	184	118	56%
Immunobiology	547	249	120%
Internal Medicine	699	342	104%
Laboratory Medicine	349	155	125%
Neurobiology	741	560	32%
Neurology	565	358	58%
Neuroscience Program	441	160	176%
Neurosurgery	263	77	242%
Obstetrics & Gynecology	395	269	47%
Ophthalmology	589	536	10%
Orthopaedics & Rehabilitation	190	141	35%
Pathology	1,320	819	61%
Pediatrics	596	247	141%
Pharmacology	355	317	12%
Physician Associate Program	1,025	343	199%
Psychiatry	1,089	905	20%
Surgery	211	312	-32%
Therapeutic Radiology	164	-	-

\*\*Molecular Biochemistry & Biophysics and the Center for Medical Informatics are not listed because they reside on other servers.

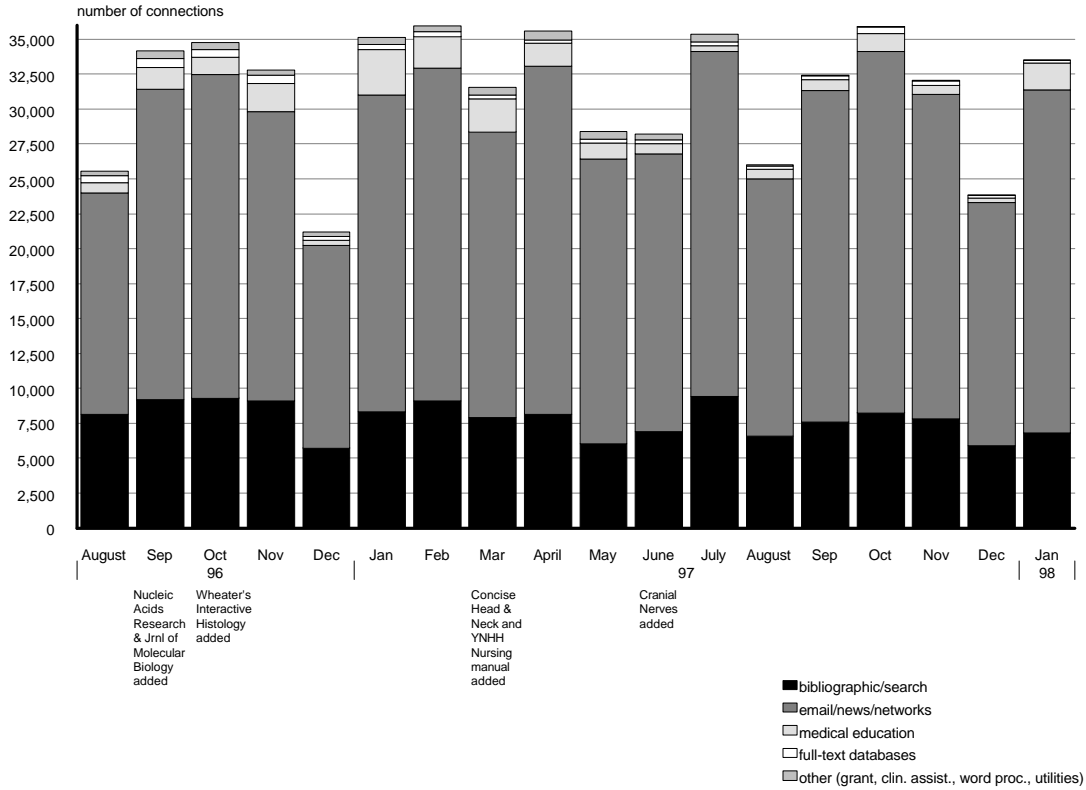


## Details for NetMenu Hospital usage

<u>Application</u>	<u>total # of connections</u>			<u>Application</u>	<u>total # of connections</u>		
	<u>Jan-98</u>	<u>Jan-97</u>	<u>% change</u>		<u>Jan-98</u>	<u>Jan-97</u>	<u>% change</u>
<b>Hospital information systems</b>	<b>22,980</b>	<b>23,173</b>	<b>-1%</b>	<b>Full text and factual databases</b>	<b>1,841</b>	<b>2,101</b>	<b>-12%</b>
CCSS	11,814	12,059	-2%	AIDSDrugs/Trials/Line-Bioethic	0	0	-
ChartView	760	194	292%	Delineation of Clinical Privileges	20	15	33%
Clinical laboratory	9,131	10,447	-13%	Electronic Journals	0	0	-
Diagnostic Imaging	179	148	21%	Harrison's	343	335	2%
EPIC	711	142	401%	Infection Control Manual	0	0	-
Electronic Signature (ESA)	223	0	-	JCAHO Accreditation Manual	16	16	0%
Surgical Pathology	162	183	-11%	Little Brown Handbooks	128	198	-35%
<b>Bibliographic databases and search tool</b>	<b>1,071</b>	<b>1,794</b>	<b>-40%</b>	Merck Manual	80	98	-18%
CINAHL	71	142	-50%	Micromedex	1,011	994	2%
Current Contents	0	0	-	New England Journal of Medicine	118	208	-43%
Health Planning and Administration	34	48	-29%	Nursing Procedures Manual	1	0	-
HealthSTAR-OVID	0	0	-	Red Book on Pediatric Infections	37	36	3%
MEDLINE	916	1,521	-40%	Residents Reprint Project	0	0	-
Yale Library Catalog (OPAC)	50	83	-40%	Rosen's Emergency Medicine	36	35	3%
<b>Word processing &amp; utilities</b>	<b>1,291</b>	<b>1,437</b>	<b>-10%</b>	STAT!-Reference	51	102	-50%
Clinical Workstation locations	47	70	-33%	YNHH Formulary	0	0	-
Format disk	14	45	-69%	YNHH Documents	0	0	-
Virus scan	44	59	-25%	YNHH Physician Phone Book	0	64	-100%
Wordperfect	1,186	1,263	-6%	<b>Email/news/networks</b>	<b>11,558</b>	<b>8,706</b>	<b>33%</b>
<b>Procedure recorders</b>	<b>301</b>	<b>291</b>	<b>3%</b>	Biomed Email	675	746	-10%
ED	39	0	-	Find People at YNHH/Yale	0	0	-
Medicine	65	65	0%	GroupWise Email	2,152	1,272	69%
Ob/Gyn	119	173	-31%	Internet access	8,731	6,688	31%
Surgery	78	53	47%				

# NetMenu workstation usage

## NetMenu in the Medical Library



## NetMenu in the Hospital

