

# **Information Technology Services - Medicine**

## **Monthly Report**

### **December 1998**

#### **Highlights and milestones**

- The conversion of Microsoft Mail to Netscape Mail was completed on schedule. Microsoft Mail service was terminated.
- Turnaround time increased by 43% from the previous 90-day average.
- ITS-Med announced to clients that it would terminate support of win 3.x by April 1999
- All Project X interface files from ITS-Med/Administrative Systems to Project X systems passed through the unit test phase with flying colors.
- The Internal Medicine ERAS System was implemented.
- Research & Communications conducted an administrators' evaluation of School and University administrative support offices.



# Information Technology Services-Medicine Monthly Report December 1998

## Applications

<u>Type of application</u>	<u>this month</u>	<u>Dec-97</u>	<u>% change</u>
AS/400 applications	7,192	7,127	1%
CINAHL	216	340	-36%
Biosis	1363	1867	-27%
Clinical Reporting System (CRS)	310	484	-36%
accesses per user per month	6.1	6	1%
Current Contents*	884	3,194	-72%
Electronic mail (# messages sent)	1,316,891	676,119	95%
messages per user per day	6.7	3.5	92%
HealthSTAR	254	1,812	-86%
MEDLINE	13,798	14,468	-5%
searches per active user per month	6.2	6.2	0%
Psychinfo	1,495	-	-
Medical Center World Wide Web			
Medical Center home page	76,391	53,250	43%
Hospital home page	7,651	1,719	345%
School of Medicine home page	11,294	7,315	54%
Medical Library home page	10,648	12,368	-14%

\*Basis version discontinued as of 7/98, automatic searches no longer included.

## Help Desk calls

	<u>this month</u>	<u>change from 90 day average</u>
Total calls	2,468	-20%
Calls per day	145	-3%
% of ITS-Med clients using Help Desk	36%	-14%
# of Yale affiliates using Web page	1,090	-
% of calls rolling over to answering service	10%	-42%

## Types of calls

Call transfer	218	-8%
Complaint	10	-52%
Information request	530	-20%
Remote Access	66	0%
Netscape Mail	58	14%
Eudora	52	-10%
Problem report	1074	-20%
Netscape Mail	150	127%
Eudora	115	-23%
Printer	112	-22%
Operating System	95	-37%
Status inquiry	119	-28%
Departments overcalling	Internal Medicine, Surgery, Dermatology, Pediatrics	
Departments undercalling	OPS, ITS-Central, HHMI	

## Background information

	<u>Hospital</u>	<u>Schools of Medicine &amp; Nursing</u>
Personal computers as of 8/98	2,100	6,800
Electronic mail users as of 8/98	1,700	6,320
Networked computers as of 11/98	1,700	4,539
Full-time faculty, 1997-98	-	1,278
Medical & graduate students, 1997-98	-	1,118
Residents & postdocs, 1997-98	440	1,127
Full-time staff, 1997-98	3,526	2,267
Nursing staff, 1997-98	1,659	-
Number of beds, 1997-98	900	-

## Work orders

	<u>change from this month</u>	<u>change from 90 day average</u>	<u>Turnaround met this month</u>	<u>change from last month</u>
Tasks added	1021	-29%	-	-
Tasks completed	1262	-7%	91%	43%
Delayed work orders	80	-14%	-	-
Billable work orders	78.7%	-2%	-	-
Normal priority	74%	-3%	95%	48%
Emergency priority	26%	9%	80%	5%
Problem reports	264	-23%	96%	-1%
Printer	58	-12%	100%	0%
Operating System	47	-30%	95%	-2%
Network Access	36	-41%	100%	4%
Hardware	28	115%	82%	-18%
New services	538	-33%	90%	27%
Email conversion: MS Mail	206	161%	97%	13%
Remote access	75	47%	78%	7%
Reconfigure for new user	53	77%	96%	50%
Service cancellations	51	38%	98%	8%
Departments over-ordering	Facilities, Surgery, OPS, Pediatrics			
Departments under-ordering	HHMI, ITS-Central, ITS-Med, Genetics, Child Study Center			

## Network installations

	<u>this month</u>	<u>change from last month</u>
# of new circuits ordered		
# completed		
# open orders		
waiting for Telecomm	these data are not yet available	
waiting for Desktop Support		
median days from order to install		
days for Telecom install		
days for Desktop Support install		

## NetMenu workstations

	<u>this month (MedMenu)</u>	<u># of connections Dec-97 (NetMenu)</u>	<u>% change</u>
Total	29,401	16,209	81%
connections from Library	93%		
connections from outside Library	7%		

## Hospital NetMenu

	<u>this month</u>	<u>Dec-97</u>	<u>% change</u>
# of connections	12,108	37,899	-68%
	111	361	-69%

Overall usage for selected databases

	Nov-97	Dec-97	Jan-98	Feb-98	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98
Summary														
AS/400 applications	8,299	7,127	10,249	8,984	9,831	9,730	9,772	12,915	14,459	10,497	10,613	10,852	7,888	7,192
Clinical Reporting System (CRS)	516	484	595	511	555	500	449	561	314	368	372	345	554	310
OVID sessions	17,768	14,468	18,931	19,258	20,620	20,905	15,843	16,120	16,859	13,935	17,604	20,025	20100	13,798
Medical Center Web server	827,327	733,452	954,720	974,557	1,072,451	1,052,005	997,452	1,011,068	1,002,890	1,040,921	1,220,255	1,376,407	1,376,407	1,352,920
Electronic mail messages sent	764,292	667,759	788,285	883,649	875,834	1,103,450	949,851	777,328	772,938	568,329	782,760	899,060	1,297,225	1,316,891

Details: AS/400 applications

Animal Care and Use Committee	78	41	93	80	107	70	137	129	83	129	124	136	169	141
Business Management Systems	73	56	84	79	76	96	70	123	115	105	120	122	100	106
Clinical G/L Interface	6	9	7	3	0	10	8	23	26	18	10	10	14	2
Clinical Information	6	1	7	1	7	2	11	3	3	5	4	0	1	0
Clinical Information - Reports	2	2	3	2	0	3	4	4	3	3	1	2	0	1
Diagnostic Laboratory	297	194	226	232	272	287	355	259	350	275	216	286	229	218
Graduate and Continuing Education	49	52	60	53	60	64	3	69	65	53	60	72	58	48
Grants and Contracts	315	311	402	385	316	291	70	325	388	338	372	442	396	295
Grants and Contracts - Reports	57	37	59	38	13	15	54	18	10	21	32	125	59	27
Human Investigation Committee	93	70	75	89	91	86	39	82	69	67	82	70	66	88
Human Resources (CHR) - Inquiry	76	49	38	31	50	34	252	55	68	65	67	43	41	41
Human Resources (CHR) - Merit	43	15	45	24	19	340	1,988	1,209	301	58	62	48	35	22
Human Resources (CHR) - Reports	5	4	6	3	7	31	74	27	12	1	4	0	0	0
Human Resources - General	83	80	94	78	64	44	61	52	35	27	47	53	37	29
Human Resources - Inquiry	2,157	1,890	2,806	2,623	2,694	2,688	1,861	3,468	4,072	3,222	3,340	3,738	2626	2,358
Human Resources - Profiles	3,376	3,185	4,820	3,753	4,400	4,052	3,415	5,699	7,614	4,579	4,698	4,463	3193	2,633
Human Resources - Reports	231	140	312	310	262	244	253	178	188	297	214	167	144	170
Internal Medicine	53	90	74	27	4	1	0	6	19	13	12	31	17	57
MED5 - Reports	11	0	1	2	1	1	0	1	2	3	1	2	1	2
Office of Public Information	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Physician Associates Program	47	43	27	55	14	21	16	3	5	0	1	19	15	20
Space Inventory System	61	45	41	23	39	29	64	23	15	76	179	68	63	35
Student Research	4	3	43	32	44	1	0	57	7	38	13	43	7	5
Student Systems	502	373	404	464	516	455	21	484	409	479	322	285	132	313
Support Services	177	78	93	97	140	148	386	137	175	161	179	173	141	131
System Administration	242	100	128	229	245	441	537	213	100	162	152	139	72	150
Yale Animal Resource Center	252	234	259	233	324	236	51	262	323	295	293	298	272	286
Other/Miscellaneous	3	25	42	38	66	40	42	6	2	7	8	17	0	3

Details: Electronic mail

Electronic mail total	764,292	667,759	788,285	883,649	875,834	1,103,450	949,851	777,328	772,938	568,329	782,760	899,060	1,297,225	1,316,891
PMDf	606,806	506,077	570,473	653,982	633,034	800,676	678,282	600,109	600,849	568,329	782,760	899,060	1,297,225	1,316,891
email.med.yale.edu	157,486	161,682	217,812	229,667	242,800	302,774	271,569	177,219	172,089	not avail*	not avail*	not avail*	not avail*	not avail*

\*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

Biosis									559	499	1,289	945	919	1,363
CINAHL									194	150	312	472	390	216
Compendex									158	90	162	141	122	89
Current Contents								1,281	1,209	1,485	2,289	1,012	884	
Full-Text Journal Collections	2,183	2,519	2,241	2,486	2,645	2,839		2,528	3,028	2,079	2,790	1,763	7,050	1,785
HAPI									35	24	71	81	76	23
HealthStar									285	191	254	390	397	254
MEDLINE, current segment									8,172	6,552	7,768	7,466	6,468	4,927
MEDLINE back files									7,215	2,044	6,747	6,086	5,437	4,646
PsychInfo									925	913	1,306	1,868	2,163	1,495
access method: telnet sessions	11,007	8,985	11,239	10,584	10,850	9,938	7,597	7,330	6,909	5,910	7,270	6,862	5033	3,830
access method: Web sessions	6,503	5,205	7,367	8,272	9,486	10,760	7,826	8,181	9,361	7,472	9,962	12,796	14453	9,618
access method: Z39.50	261	283	331	407	297	218	432	628	591	552	417	371	646	353

## Medical Center Web usage report, December 1998

### Top 10 pages accessed by Yale users

<u>this year</u>	<u>last year</u>
Medical Center	Medical Center
Biochemistry midterm exam	Medical Library
MedMenu	School of Medicine
Medical Library	MedMenu
EPH Library	Desktop Support
School of Medicine	Medical Library's Internet search page
Desktop Support	IDX project
Keck DNA Sequencing FTP access	Student course evaluations
Find a person	Find a person
Computer Resource Lab	Academic departments page

	<u>Dec-98</u>	<u>Dec-97</u>	<u>% change</u>
<b>Server total</b>	<b>1,352,920</b>	<b>733,452</b>	<b>84%</b>
<b>Who connected</b>			
Yale	461,212	189,298	144%
other US educational institutions	114,917	71,749	60%
US government & military	11,738	6,941	69%
US commercial institutions	210,770	159,745	32%
US non-profit organizations	20,043	6,731	198%
Major online service providers	150,638	77,708	94%
International	156,387	94,936	65%
<b># of unique hosts connecting</b>	<b>94,312</b>	<b>66,357</b>	<b>42%</b>
<b>Medical Center</b>	<b>76,391</b>	<b>53,250</b>	<b>43%</b>
<b>Yale-New Haven Hospital</b>	<b>7,651</b>	<b>1,719</b>	<b>345%</b>
<b>School of Medicine</b>	<b>11,294</b>	<b>7,315</b>	<b>54%</b>
<b>School of Nursing</b>	<b>1,639</b>	<b>783</b>	<b>109%</b>
<b>Major resources</b>			
Admissions, School of Medicine	-	-	-
CAIM style manual	59,254	67436	-12%
Computing page	1,000	627	59%
Core research facilities page	330	184	79%
Education page	229	204	12%
Emerging Infections Information Network	1,435	2,062	-30%
Find a person	2,639	1,614	64%
Find a physician	840	628	34%
Medical Library	10,648	12,368	-14%
MedMenu	32,454	2,139	1417%
Mission: Community Service	223	143	56%
Mission: Education	821	560	47%
Mission: Patient Care	337	261	29%
Mission: Research	981	817	20%
Scientific Affairs and Grant & Contrac Adminis	836	768	9%
Yale Faculty Practice	821	502	64%
<b>Service departments</b>			
Biomedical Communications	433	279	55%
C/AIM	2,924	3,561	-18%
Center for Cell Imaging	209	413	-49%
Copy Center	89	62	44%
Desktop Support	2,523	1,620	56%
Help Desk	170	152	12%
Systems Support	342	229	49%

### Top 10 pages accessed by external users

<u>this year</u>	<u>last year</u>
Center for Advanced Instructional Media	Center for Advanced Instructional Media
Medical Center page	Medical Center page
Yale-New Haven Hospital Clinical Workstation	School of Medicine
School of Medicine	Server search
School of Medicine's admissions viewbook	Medical Library
Server search	School of Medicine's admissions viewbook
Medical Library	Child Study Center's Autism page
Academic departments page	Academic departments page
BBS	Medical Library's Selected Internet Resource
Yale Heart Book	Yale-New Haven Hospital

	<u>Dec-98</u>	<u>Dec-97</u>	<u>% change</u>
<b>Academic Departments**</b>			
Anesthesiology	249	391	-36%
BBS	1,363	798	71%
Boyer Center for Molecular Medicine	803	541	48%
Cancer Center	1,513	604	150%
Cell Biology	1,278	625	104%
Cellular & Molecular Physiology	349	367	-5%
Child Study Center	1,603	615	161%
Comparative Medicine	162	87	86%
Dermatology	622	515	21%
Diagnostic Radiology	521	665	-22%
Epidemiology & Public Health	3,303	1,892	75%
Genetics	1,033	754	37%
History of Medicine	270	146	85%
Immunobiology	765	372	106%
Internal Medicine	757	502	51%
Laboratory Medicine	479	232	106%
Neurobiology	760	657	16%
Neurology	706	417	69%
Neuroscience Program	517	310	67%
Neurosurgery	328	206	59%
Obstetrics & Gynecology	456	271	68%
Ophthalmology	1,301	506	157%
Orthopaedics & Rehabilitation	474	123	285%
Pathology	1,059	1,103	-4%
Pediatrics	704	418	68%
Pharmacology	487	309	58%
Physician Associate Program	994	752	32%
Psychiatry	1,329	914	45%
Surgery	149	179	-17%
Therapeutic Radiology	202	100	102%

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

Details for NetMenu Medical Library usage  
December-98

Application	total # of connections				total # of connections				total # of connections		
	Dec-98	Dec-97	% change		Dec-98	Dec-97	% change		Dec-98	Dec-97	% change
<b>Electronic textbooks</b>	<b>487</b>	<b>0</b>	-								
Harrison's	233	-	-								
MAXX	0	-	-								
Medical Letter on Drugs and Therap.	38	-	-								
Merck Manual	71	-	-								
SAM: Scientific Amer. Medicine	48	-	-								
SIR - Texts	46	-	-								
Stat!Ref	21	-	-								
Williams-Obstetrics	30	-	-								
<b>Medical Education</b>	<b>366</b>	<b>299</b>	<b>22%</b>	<b>Medical Education</b>				<b>Other Resources</b>			
Abdomen Quiz	12	42	-71%	Thorax Quiz	4	15	-73%	HISTLINE	27	-	-
Anatomic Explorer	4	12	-67%	USMLE Step 1	5	18	-72%	History of Science & Technology	11	3	267%
Anatomic Explorer CT	2	5	-60%	USMLE Step 2	8	29	-72%	HSTAT	18	-	-
Animated Embryo	7	16	-56%	Wheaton's Interactive Histology	0	3	-	ICD-9	13	-	-
Brainstem	1	3	-67%					Infection Control Manual	21	-	-
Brainstem Quiz	0	2	-100%	<b>Other resources</b>	<b>28,548</b>	<b>15,910</b>	<b>79%</b>	INSPEC	21	-	-
Brainstorm	6	3	100%	AIDSDrugs	19	1	1800%	Internet Grateful Med	70	-	-
Breath sounds	2	7	-71%	AIDSLINE	22	6	267%	IRIS	30	0	-
Cardiac Angio	3	1	200%	AIDSTrials-ACTIS	19	-	-	Law Library Catalog	17	-	-
Cardiac Auscultation	2	4	-50%	Applied Science	11	-	-	Martindale	23	-	-
Cardiac Echo	2	4	-50%	Best-Evidence	27	-	-	Material Safety Data Sheets	25	-	-
Cardiac MRI	1	1	0%	Bibliographic DB and Search Tools	1	-	-	MedMenu	107	-	-
Cardiac Perfusion Imaging: SP	2	1	100%	Bioethicsline	24	-	-	Micromedex	48	4	1100%
Cardiac Perfusion Imaging: PI	0	1	-100%	Biography Index	19	-	-	New England Journal of Medicine	24	6	300%
Cardiothoracic Image Quiz	1	4	-75%	Biomed Email	10,768	7,530	43%	NEXIS/LEXIS	374	30	1147%
Cardiothoracic Imaging	1	1	0%	Biosis	62	6	933%	NIH-Consensus-Dev-Statements	6	-	-
Concise Atlas - Cardiothoracic	0	2	-100%	Books in Print	65	11	491%	NIH-Grants/Guide	39	-	-
Concise Atlas - Chest	0	5	-100%	Britannica Online	36	15	140%	NLM Locator	18	-	-
Concise Atlas - Extremities	0	2	-100%	Bulldog Access	36	10	260%	NO	21	-	-
Concise Atlas - Head & Neck	0	1	-	CancerLit	1	-	-	NTIS	23	-	-
Course evaluations	16	-	-	Cancernet	25	-	-	OMIM	47	0	-
Cranial Nerves	0	1	-100%	CIAO: Columbia Int'l Affairs Online	1	-	-	OSH-ROM	25	-	-
Educational Software	156	0	-	CINAHL	54	5	980%	Other	283	-	-
Embryo images	5	3	67%	Clinical Laboratory	22	-	-	OVID	7,144	3,814	87%
EPS Review	2	1	100%	Cochrane	78	-	-	Pantheon/Minerva	1,892	2,404	-21%
Extremities Quiz	1	6	-83%	Community of Science	22	6	267%	Patent Search	28	-	-
Forebrain (Syracuse)	0	4	-100%	Compendex	47	-	-	PDR	37	-	170%
Gross Anatomy Review	6	15	-60%	Congressional Compass	76	0	-	Periodicals Contents Index	19	-	-
HARP (Histological Anatomy Review)	13	8	63%	CT CRISP	16	4	-	Phone Books	27	10	170%
Head and Neuroanatomy Quiz	0	0	-	Current Contents	58	30	93%	Physican-Data	18	5	260%
Head Quiz	0	1	-100%	Current Diagnoses	225	-	-	POPLINE	26	-	-
Histology Quizbank	4	3	33%	Diagnostic Imaging	22	-	-	ProQuest-Direct	43	-	-
Histology Video Review	0	3	-100%	DIRLINE	19	-	-	PsycINFO	91	23	296%
HyperBRAIN	0	-	-	Dissertation Abstracts	31	-	-	PubMed (NCBI)	88	-	-
HyperCELL	0	2	-100%	EBMR	32	-	-	Research Workstation	22	-	-
Hyperheart	7	6	17%	EconLit	7	-	-	Residents' Reprints	19	-	-
Interactive Brain Atlas	1	2	-50%	Electronic Journals	1,232	12	10167%	Selected Internet Resources (SIR)	679	-	-
Interactive Respiratory Physiology	0	5	-100%	Electronic Textbooks	470	-	-	Sociofile	8	-	-
KINEMAGE	0	3	-100%	Entrez	45	-	-	Statistical UNIVerse	35	-	-
Lazy Eye	0	6	-100%	EPIC	18	-	-	Superhead	3	-	-
MacBaby	25	4	525%	ERAS	6	8	-25%	Surgical Pathology	31	-	-
Microbiology Quizbank	47	29	62%	ERIC	16	1	1500%	Toxline	19	-	-
Neuroanatomy Review	3	5	-40%	Eureka	22	4	450%	TOXNET	19	-	-
Neuron Model: Tutorial	0	0	-	Expanded Academic Index	0	4	-100%	UnCover	20	-	-
Neuron Model: Current Clamp	2	1	100%	FEDIX	15	-	-	Web-of-Science	170	47	262%
Neuron Model: Voltage Clamp	1	0	-	Formulary Catalog	19	-	-	WilsonWeb	16	-	-
Pathology Quizbank	1	5	-80%	FREIDA	34	11	209%	Yale Library Catalog (OPAC)	2,804	1,900	48%
Perineum Quiz	1	4	-75%	GDB	14	-	-	Y-NH Medical Center WWW Site	2	-	-
PreTest (2 different fields)	8	12	-33%	GenBank	16	0	-	Y-Axis	35	-	-
Superhead	4	2	100%	GPO	26	-	-				
				Grant Resources	21	-	-				
				GroupWise	9	-	-				
				HAPI	50	-	-				
				HealthSTAR	84	-	-				

**Details for NetMenu Hospital usage  
December-98**

<u>Application</u>	<u>total # of connections</u>		
	<u>Dec-98</u>	<u>Dec-97</u>	<u>% change</u>
<b>Hospital information systems</b>	<b>5,294</b>	<b>22,436</b>	<b>-76%</b>
CCSS	2,815	11,537	-76%
ChartView	324	654	-50%
Clinical laboratory	1,782	8,945	-80%
Diagnostic Imaging	28	159	-82%
EPIC	150	792	-81%
Electronic Signature (ESA)	186	161	16%
Surgical Pathology	9	188	-95%
 <b>Bibliographic databases and search tools</b>	 <b>2,725</b>	 <b>1,165</b>	 <b>134%</b>
CINAHL	15	58	-74%
Current Contents	-	0	-
Health Planning and Admin.	20	32	-38%
HealthSTAR-OVID	-	0	-
INTERNET	2,539	-	-
MEDLINE	137	1,035	-87%
Yale Library Catalog (OPAC)	14	40	-65%
 <b>Word processing &amp; utilities</b>	 <b>243</b>	 <b>1,140</b>	 <b>-79%</b>
Clinical Workstation locations	14	30	-53%
Format disk	3	22	-86%
Virus scan	2	47	-
Wordperfect	224	1,041	-78%
 <b>Procedure recorders</b>	 <b>175</b>	 <b>339</b>	 <b>-48%</b>
ED	4	26	-85%
Medicine	137	71	93%

<u>Application</u>	<u>total # of connections</u>		
	<u>Dec-98</u>	<u>Dec-97</u>	<u>% change</u>
<b>Full text and factual databases</b>	<b>354</b>	<b>2013</b>	<b>-82%</b>
AIDS/Drugs/Trials/Line-Bioethic	-	0	-
Delineation of Clinical Privileges	-	17	-
Electronic Journals	-	0	-
Harrison's	65	239	-73%
Infection Control Manual	-	0	-
JCAHO Accreditation Manual	15	15	0%
Little Brown Handbooks	28	106	-74%
Merck Manual	15	53	-72%
Micromedex	151	1338	-89%
New England Journal of Medicine	36	123	-71%
Nursing Procedures Manual	-	0	-
Red Book on Pediatric Infections	6	17	-65%
Rosen's Emergency Medicine	11	47	-77%
STAT!-Reference	22	58	-62%
YNHH Formulary	-	0	-
YNHH Documents	-	0	-
YNHH Physician Phone Book	5	-	-
 <b>Email/news/networks</b>	 <b>3,312</b>	 <b>10,806</b>	 <b>-69%</b>
Biomed Email	206	696	-70%
DEC RAD Telnet	1	-	-
Find People at YNHH/Yale	-	0	-
GroupWise Email	566	2,226	-75%
Internet access	2,539	7,884	-68%
 <b>Clinical Assistance</b>	 <b>5</b>	 <b>0</b>	 <b>-</b>
Coag Advisor	5	0	-