

Information Technology Services - Medicine Monthly Report February 1999

Highlights and milestones

- A document imaging system to process several million pages of medical insurance forms went operational on Monday February 22
- The MEDLINE system, the 3rd most used system in the School behind email and the web, was upgraded in March 1 to be entirely Y2K compliant.
- In response to the closing of the Microcenter's hardware repair unit, ITS-Med developed a partnership with Advanced Office Systems to provide coordinated hardware and software repair for our clients.
- The EMPAC interfaces passed the Project X Integration Test.
- Phase I of the Student Affairs Systems Y2K remedation project was completed.
- The pilot Y2K evaluation of biomedical equipment was completed.
- ITS-Med completed its second annual performance appraisal, using a revised web-based 360-degree feedback system and new, streamlined appraisal tools, in a collaboration with Human Resources and Schoonover Associates.
- Electronic mail volume and web usage have increased by over 60% from a year ago.
- Use of AS/400 applications remains steady.
- Use of OVID databases has declined by 11% since last year.
- The Help Desk received more problem reports for Netscape Mail (46% more than 90-day average) and remote access (94% more than 90-day average).
- Turnaround time limits were achieved for 71% of work orders.
- Two-hundred forty-three work orders were put on delay, an increase of 135% from the 90-day average.
- Billable work orders decreased by 19%, to 64.2% of all work orders this month.



**Information Technology Services-Medicine Monthly Report
February 1999**

<u>Applications</u>	<u>this month</u>	<u>Feb-98</u>	<u>% change</u>
AS/400 applications	9,065	8,984	1%
CINAHL	296	740	-60%
Biosis	890	958	-7%
Clinical Reporting System (CRS) accesses per user per month	251	511	-51%
Current Contents*	5.2	8	-35%
Electronic mail (# messages sent) messages per user per day	1,114,538	889,649	25%
HealthSTAR	6.3	4.6	37%
MEDLINE	320	800	-60%
MEDLINE searches per active user per month	17,081	19,258	-11%
Psychinfo	5.4	8.3	-35%
Medical Center World Wide Web Medical Center home page	1,466	-	-
Hospital home page	98,913	61,745	60%
School of Medicine home page	10,475	2,138	390%
Medical Library home page	12,550	9,118	38%
	13,793	16,026	-14%

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

<u>Background information</u>	<u>Hospital</u>	<u>Schools of Medicine & 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 1/99	1,700	4,633
Full-time faculty, 1998-99	-	1,765
Medical & graduate students, 1998-99	-	869
Residents & postdocs, 1998-99	460	1,048
Full-time staff, 1998-99	3,440	2,332
Nursing staff, 1998-99	1,540	-
Number of beds, 1998-99	900	-

<u>ITS-Med clients</u>	<u>this month</u>	<u>change from last month</u>
Core network service	4,477	1%
Machine-only service	1,030	1%
Email-only service	527	9%
On-campus dial-up service	101	6%
Scheduling	1,234	2%
Remote access	1,240	8%
Workgroup computing	93	50%

<u>Help Desk calls</u>	<u>this month</u>	<u>change from 90 day average</u>
Total calls	2,930	3%
Calls per day	147	3%
% of ITS-Med clients using Help Desk	33%	-15%
# of Yale affiliates using Web page	1,321	18%
% of calls rolling over to answering service	0.1%	-99%

<u>Types of calls</u>	<u>this month</u>	<u>change from 90 day average</u>
Call transfer	317	22%
Complaint	25	67%
Information request	661	12%
Remote access	94	24%
Netscape Mail	84	42%
ITS-Med services	77	120%
Problem report	1409	8%
Netscape Mail	186	46%
Remote access	157	94%
Eudora	147	-15%
Operating system	137	1%
Printer	133	-19%
Status inquiry	159	16%

Departments overcalling
Psychiatry, Internal Medicine, Orthopaedics & Rehabilitation, Pediatrics

Departments undercalling
OPS, ITS-Central, Child Study Center, HHMI, Cell Biology

<u>Work orders</u>	<u>this month</u>	<u>change from 90 day average</u>	<u>Turnaround met this month</u>	<u>change from last month</u>
Tasks added	1402	18%	-	-
Tasks completed	1371	12%	88%	-6%
Delayed work orders	243	135%	-	-
Billable work orders	64.2%	-19%	-	-
Normal priority	80%	4%	89%	-8%
Emergency priority	20%	-15%	86%	1%
Problem reports	296	2%	97%	0%
Operating system	90	36%	99%	-1%
Printer	56	-8%	96%	-4%
Network access problem	50	6%	98%	-2%
New services	863	38%	80%	-15%
Netscape Mail	209	553%	81%	-19%
Microsoft Mail conversion	122	23%	84%	-13%
Remote access	113	69%	92%	-3%
Service cancellations	23	-30%	90%	5%
Departments over-ordering	Facilities, OPS, EPH, Internal Medicine			
Departments under-ordering	Anesthesiology, Child Study Center, Genetics, ITS-Med, ITS-Central			

<u>NetMenu workstations</u>	<u>this month (MedMenu)</u>	<u>Library # of connections Feb 1998 (NetMenu)</u>	<u>% change</u>	<u>this month</u>	<u>Feb-98</u>	<u>% change</u>
Total	39,027	31,831	23%	9,979	36,428	-73%
connections from Library	94%			92	361	-75%
connections from outside Library	6%					

Overall usage for selected databases

	Jan-98	Feb-98	Mar-98	Apr-98	Mav-98	Jun-98	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98	Jan-99	Feb-99
Summary														
AS/400 applications	10,249	8,984	9,831	9,730	9,772	12,915	14,459	10,497	10,613	10,852	7,888	7,192	9,816	9,065
Clinical Reporting System (CRS)	595	511	555	500	449	561	314	368	372	345	554	310	563	251
OVID sessions	18,931	19,258	20,620	20,905	15,843	16,120	16,859	13,935	17,604	20,025	20,100	13,798	16,111	17,081
Medical Center Web server	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	1,545,299	1,568,689
Electronic mail messages sent	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	1,286,579	1,486,051

Details: AS/400 applications

Animal Care and Use Committee	93	80	107	70	137	129	83	129	124	136	169	141	57	164
Business Management Systems	84	79	76	96	70	123	115	105	120	122	100	106	96	89
Clinical G/L Interface	7	3	0	10	8	23	26	18	10	10	14	2	18	8
Clinical Information	7	1	7	2	11	3	3	5	4	0	1	0	4	1
Clinical Information - Reports	3	2	0	3	4	4	3	3	1	2	0	1	1	1
Diagnostic Laboratory	226	232	272	287	355	259	350	275	216	286	229	218	309	226
Graduate and Continuing Education	60	53	60	64	3	69	65	53	60	72	58	48	59	65
Grants and Contracts	402	385	316	291	70	325	388	338	372	442	396	295	380	375
Grants and Contracts - Reports	59	38	13	15	54	18	10	21	32	125	59	27	28	25
Human Investigation Committee	75	89	91	86	39	82	69	67	82	70	66	88	105	111
Human Resources (CHR) - Inquiry	38	31	50	34	252	55	68	65	67	43	41	41	52	69
Human Resources (CHR) - Merit	45	24	19	340	1,988	1,209	301	58	62	48	35	22	14	32
Human Resources (CHR) - Reports	6	3	7	31	74	27	12	1	4	0	0	0	2	7
Human Resources - General	94	78	64	44	61	52	35	27	47	53	37	29	29	34
Human Resources - Inquiry	2,806	2,623	2,694	2,688	1,861	3,468	4,072	3,222	3,340	3,738	2,626	2,358	3,313	2,950
Human Resources - Profiles	4,820	3,753	4,400	4,052	3,415	5,699	7,614	4,579	4,698	4,463	3,193	2,633	3,974	3,608
Human Resources - Reports	312	310	262	244	253	178	188	297	214	167	144	170	286	212
Internal Medicine	74	27	4	1	0	6	19	13	12	31	17	57	56	25
MED5 - Reports	1	2	1	1	0	1	2	3	1	2	1	2	7	1
Office of Public Information	-	-	-	-	-	-	-	-	-	-	-	11	10	25
Physician Associates Program	27	55	14	21	16	3	5	0	1	19	15	20	40	28
Space Inventory System	41	23	39	29	64	23	15	76	179	68	63	35	44	32
Student Research	43	32	44	1	0	57	7	38	13	43	7	5	66	21
Student Systems	404	464	516	455	21	484	409	479	322	285	132	313	356	340
Support Services	93	97	140	148	386	137	175	161	179	173	141	131	117	207
System Administration	128	229	245	441	537	213	100	162	152	139	72	150	106	176
Yale Animal Resource Center	259	233	324	236	51	262	323	295	293	298	272	286	281	231
Other/Miscellaneous	42	38	66	40	42	6	2	7	8	17	0	3	6	2

Details: Electronic mail

Electronic mail total	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	1,286,579	1,486,051
PMDF	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	1,286,579	1,486,051
email.med.yale.edu	217,812	229,667	242,800	302,774	271,569	177,219	172,089	not avail*	not avail*	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	714	890
CINAHL							194	150	312	472	390	216	238	296
Compendex							158	90	162	141	122	89	221	182
Current Contents							1,281	1,209	1,485	2,289	1,012	884	1,179	1,167
Full-Text Journal Collections	2,241	2,486	2,645	2,839		2,528	3,028	2,079	2,790	1,763	7,050	1,785	3,515	4,090
HAPI							35	24	71	81	76	23	44	58
HealthStar							285	191	254	390	397	254	303	320
MEDLINE, current segment							8,172	6,552	7,768	7,466	6,468	4,927	6,004	6,163
MEDLINE back files							7,215	2,044	6,747	6,086	5,437	4,646	5,326	5,691
PsychInfo							925	913	1,306	1,868	2,163	1,495	1,328	1,466
access method: telnet sessions	11,239	10,584	10,850	9,938	7,597	7,330	6,909	5,910	7,270	6,862	5,033	3,830	4,503	4,296
access method: Web sessions	7,367	8,272	9,486	10,760	7,826	8,181	9,361	7,472	9,962	12,796	14,453	9,618	11,096	12,295
access method: Z39.50	331	407	297	218	432	628	591	552	417	371	646	353	525	495

Medical Center Web usage report, February 1999

Top 10 pages accessed by Yale users

<u>this year</u>	<u>last year</u>
Medical Center	Medical Center
MedMenu	Medical Library
EPH Library	MedMenu
Medical Library	School of Medicine
School of Medicine	Desktop Support
Desktop Support	EPH Library
Server search	Server search
Medical Library's Internet search page	Medical Library's Internet search page
Find a person	Find a person
Keck DNA Sequencing FTP access	Y-Axis (Medical Student Website)

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
Medical Library	Yale-New Haven Hospital Clinical Worksta
Server search	Medical Library
School of Medicine's admissions viewbook	School of Medicine's admissions viewbook
Academic departments page	Child Study Center's Autism/PDD Clinic
Yale Heart Book	Academic departments page
Medical Library's Selected Internet Resources database	Medical Library's Selected Internet Resource

	<u>Feb-99</u>	<u>Feb-98</u>	<u>% change</u>
Server total	1,568,689	974,557	61%
Who connected			
Yale	414,963	252,090	65%
other US educational institutions	139,431	115,941	20%
US government & military	13,171	9,216	43%
US commercial institutions	240,229	189,325	27%
US non-profit organizations	15,259	8,341	83%
Major online service providers	173,103	101,794	70%
International	179,427	130,703	37%
# of unique hosts connecting	125,440	85,585	47%
Medical Center	98,913	61,745	60%
Yale-New Haven Hospital	10,475	2,138	390%
School of Medicine	12,550	9,118	38%
School of Nursing	1,831	1,207	52%
Major resources			
Admissions, School of Medicine	-	-	-
CAIM style manual	109,510	74,696	47%
Computing page	1,100	768	43%
Core research facilities page	421	346	22%
Education page	340	256	33%
Emerging Infections Information Network	1,601	2,305	-31%
Find a person	3,134	2,004	56%
Find a physician	1,141	732	56%
Medical Library	13,793	16,026	-14%
MedMenu	35,682	7,193	-
Mission: Community Service	316	253	25%
Mission: Education	1,028	732	40%
Mission: Patient Care	522	343	52%
Mission: Research	1,365	1,121	22%
Scientific Affairs and Grant & Contrac Adminis	995	768	30%
Yale Faculty Practice	1,071	702	53%
Service departments			
Biomedical Communications	512	475	8%
C/AIM	5,107	4,686	9%
Center for Cell Imaging	742	594	25%
Copy Center	142	146	-3%
Desktop Support	3,841	2,224	73%
Help Desk	213	137	55%
Systems Support	473	255	85%

	<u>Feb-99</u>	<u>Feb-98</u>	<u>% change</u>
Academic Departments**			
Anesthesiology	246	391	-37%
BBS	1,222	798	53%
Boyer Center for Molecular Medicine	759	541	40%
Cancer Center	1,141	604	89%
Cell Biology	1,516	625	143%
Cellular & Molecular Physiology	430	367	17%
Child Study Center	1,790	615	191%
Comparative Medicine	175	87	101%
Dermatology	1,146	515	123%
Diagnostic Radiology	601	665	-10%
Epidemiology & Public Health	4,448	1,892	135%
Genetics	858	754	14%
History of Medicine	347	146	138%
Immunobiolog	656	372	76%
Internal Medicin	834	502	66%
Laboratory Medicine	464	232	100%
Neurobiology	875	657	33%
Neurology	654	417	57%
Neuroscience Program	569	310	84%
Neurosurgery	337	206	64%
Obstetrics & Gynecology	448	271	65%
Ophthalmology	1,437	506	184%
Orthopaedics & Rehabilitation	477	123	288%
Pathology	1,168	1,103	6%
Pediatrics	733	418	75%
Pharmacology	491	309	59%
Physician Associate Program	1,202	752	60%
Psychiatry	1,344	914	47%
Surgery	187	179	4%
Therapeutic Radiology	258	100	158%

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

Details for NetMenu Medical Library usage
February-99

Application	total # of connections				total # of connections				total # of connections		
	Feb-99	Feb-98	% change		Feb-99	Feb-98	% change		Feb-99	Feb-98	% change
Electronic textbooks	590	0	-	Medical Education				Other Resources			
Harrison's	326	-	-	Neuroanatomy Review	17	15	13%	GenBank	29	4	-
MAXX	-	-	-	Neuron Model: Tutorial	3	3	-	GPO	23	-	-
Medical Letter on Drugs and Therap.	50	-	-	Neuron Model: Current Clamp	-	6	-	Grant Resources	19	-	-
Merck Manual	79	-	-	Neuron Model: Voltage Clamp	-	1	-	GroupWise	10	-	-
SAM: Scientific Amer. Medicine	54	-	-	Pathology Quizbank	5	156	-97%	HAPI	51	-	-
SIR - Texts	37	-	-	Perineum Quiz	23	33	-30%	HealthSTAR	87	-	-
Stat!Ref-TextB15ooks	17	-	-	PreTest (4 different fields)	6	31	-81%	HISTLINE	19	-	-
Williams-Obstetrics	27	-	-	Superhead	5	46	-89%	History of Science & Technology	15	1	1400%
				Thorax Quiz	4	12	-67%	HSTAT	17	-	-
				USMLE Step 1	13	35	-63%	ICD-9	29	-	-
Medical Education	569	890	-36%	USMLE Step 2	17	119	-86%	Infection Control Manual	15	-	-
Abdomen Quiz	18	30	-40%	Wheater's Interactive Histology	-	5	-	INSPEC	18	-	-
Anatomic Explorer	12	11	9%					Internet Grateful Med	83	-	-
Anatomic Explorer CT	7	15	-53%	Other resources	37,868	20,880	81%	IRIS	26	3	767%
Animated Embryo	17	13	31%	AIDSDrugs	18	2	800%	Law Library Catalog	15	-	-
Brainstem	7	22	-68%	AIDSLINE	24	3	700%	Martindale	44	-	-
Brainstem Quiz	-	11	-	AIDSTrials-ACTIS	0	-	-	Material Safety Data Sheets	17	-	-
Brainstorm	5	14	-64%	Applied Science	11	-	-	Medical Education	-	-	-
Breath sounds	2	29	-93%	Best-Evidence	16	-	-	MedMenu	143	-	-
Cardiac Angio	-	10	-	Bioethicsline	25	-	-	Micromedex	53	2	2550%
Cardiac Auscultation	2	39	-95%	Biography Index	26	-	-	New England Journal of Medicine	40	9	344%
Cardiac Echo	4	21	-81%	Biomed Email	15,543	11,225	38%	NEXIS-LEXIS	290	64	353%
Cardiac MRI	2	9	-78%	Biosis	83	11	655%	NIH-Consensus-Dev-Statements	4	-	-
Cardiac Perfusion Imaging: SP	-	2	-	Books in Print	67	8	738%	NIH-Grants/Guide	30	-	-
Cardiac Perfusion Imaging: PI	-	-	-	Britannica Online	29	4	625%	NLM Locator	20	-	-
Cardiothoracic Image Quiz	6	10	-40%	Bulldog Access	31	6	417%	NO	19	-	-
Cardiothoracic Imaging	3	10	-70%	Cancernet	24	-	-	NTIS	15	-	-
Concise Atlas - Cardiothoracic	3	10	-70%	CIAO: Columbia Int'l Affairs Online	1	-	-	OMIM	59	-	-
Concise Altas - Chest	-	2	-	CINAHL	72	8	800%	OSH-ROM	16	-	-
Concise Altas - Extremities	-	-	-	Clinical Laboratory	17	-	-	Other	82	-	-
Concise Altas - Head & Neck	-	60	-	Cochrane	48	-	-	OVID	9,377	4,284	119%
Course evaluations	13	-	-	Community of Science	95	12	692%	Pantheon/Minerva	2,753	3,020	-9%
Cranial Nerves	-	48	-	Compendex	40	-	-	Patent Search	26	-	-
Educational Software	188	-	-	Congressional Universe	16	-	-	PDR	55	-	1375%
Embryo images	8	21	-62%	CT CRISP	35	5	600%	Periodicals Contents Index	18	-	-
EPS Review	-	1	-	Current Contents	58	20	190%	Phone Books	59	4	1375%
Extremities Quiz	8	8	0%	Current Diagnoses	343	-	-	Physican Data Query	24	6	300%
Forebrain (Syracuse)	-	9	-	Diagnostic Imaging	24	-	-	POPLINE	21	-	-
Gross Anatomy Review	41	37	11%	DIRLINE	0	-	-	ProQuest-Direct	45	-	-
HARP (Histological Anatomy Review)	2	-	-	Dissertation Abstracts	24	-	-	PsycINFO	72	74	-3%
Head and Neuroanatomy Quiz	-	41	-	EBMR	30	-	-	PubMed (NCBI)	112	-	-
Head Quiz	25	87	-71%	EconLit	4	-	-	Research Workstation	29	-	-
Histology Quizbank	8	1	700%	Electronic Journals	1,920	22	8627%	Residents' Reprints	12	-	-
Histology Video Review	2	10	-	Electronic Textbooks	710	-	-	Selected Internet Resources (SIR)	792	-	-
HyperBRAIN	11	-	-	Entrez	48	-	-	Sociofile	9	-	-
HyperCELL	-	5	-	EPIC	17	-	-	Statistical UNIVERse	21	-	-
Hyperheart	1	30	-97%	ERAS	-	1	-	Surgical Pathology	28	-	-
Interactive Brain Atlas	4	38	-89%	ERIC	16	8	100%	Toxline	15	-	-
Interactive Respiratory Physiology	-	4	-	Eureka	22	2	1000%	TOXNET	18	-	-
KINEMAGE	-	5	-	FEDIX	15	-	-	UnCover	19	-	-
Lazy Eye	67	35	91%	Formulary Catalog	19	-	-	Web-of-Science	363	45	707%
MacBaby	8	10	-20%	FREIDA	23	22	5%	WilsonWeb	24	-	-
Microbiology Quizbank	2	11	-82%	GDB	14	-	-	Yale Library Catalog (OPAC)	3,134	2,009	56%
								Y-Axis	46	-	-

**Details for NetMenu Hospital usage
February-99**

<u>Application</u>	<u>total # of connections</u>		
	<u>Feb-99</u>	<u>Feb-98</u>	<u>% change</u>
Hospital information systems	4,671	22,113	-79%
CCSS	2,837	11,286	-75%
ChartView	23	591	-96%
Clinical laboratory	1,711	8,945	-81%
Diagnostic Imaging	14	171	-92%
EPIC	44	484	-91%
Electronic Signature (ESA)	31	462	-93%
Surgical Pathology	11	174	-94%
Bibliographic databases and search tools	3,678	1,207	205%
CINAHL	11	104	-89%
Current Contents	-	0	-
Health Planning and Admin.	12	38	-68%
HealthSTAR-OVID	-	0	-
INTERNET	3,541	-	-
MEDLINE	104	1,014	-90%
Yale Library Catalog (ORBIS)	10	51	-80%
Word processing & utilities	328	1,020	-68%
Clinical Workstation locations	17	56	-70%
Format disk	8	21	-62%
Virus scan	8	27	-
Wordperfect	295	916	-68%
Procedure recorders	37	293	-87%
ED	1	14	-
Medicine	14	63	-78%

<u>Application</u>	<u>total # of connections</u>		
	<u>Feb-99</u>	<u>Feb-98</u>	<u>% change</u>
Full text and factual databases	416	1,469	-72%
AIDS/Drugs/Trials/Line-Bioethic	-	0	-
Delineation of Clinical Privileges	2	9	-
Electronic Journals	-	0	-
Harrison's	57	236	-76%
Infection Control Manual	-	0	-
JCAHO Accreditation Manual	6	75	-92%
Little Brown Handbooks	26	128	-80%
Merck Manual	14	45	-69%
Micromedex	237	719	-67%
New England Journal of Medicine	39	123	-68%
Nursing Procedures Manual	-	0	-
Red Book on Pediatric Infections	2	22	-91%
Rosen's Emergency Medicine	4	21	-81%
STAT!-Reference	23	62	-63%
YNHH Formulary	-	0	-
YNHH Documents	-	0	-
YNHH Physician Phone Book	6	29	-
Email/news/networks	843	10,304	-92%
Biomed Email	183	973	-81%
DEC RAD Telnet	-	-	-
Find People at YNHH/Yale	-	0	-
GroupWise Email	260	1,915	-86%
GroupWise Webaccess	400	7,416	-95%
Clinical Assistance	6	22	-
Coag Advisor	6	22	-