

Information Technology at Purdue (ITaP)

Infrastructure	FY2006	FY2007	FY2008	FY2009
E-mail transactions delivered per day	2,000,000	2,469,000	2,237,674	1,339,654
Telephone calls delivered per day	147,000	145,000	129,000	121,000
Active network connections	35,000	37,000	40,070	39,850
Telephone lines	20,450	20,500	20,650	20,450
Commodity bandwidth available (in megabits/second)	1,400	1,400	1,400	1,500
Size of network traffic per day (in terabytes)	34	35	46	57
Buildings with wireless network access	97%	97%	98%	98%
Wireless access points	1,275	1,403	1,500	1,700
Wireless network users daily	2,100	2,200	7,500	8,000
Software licensing contracts negotiated	630	669	674	504
Physical servers – ITaP-supported ¹	811	918	733	3,224
University-owned workstations ²	26,331	26,951	27,317	25,967

Learning	Spring 2006	Spring 2007	Spring 2008	Spring 2009
Academic classrooms on network	100%	100%	100%	100%
Media-enhanced classrooms	84%	88%	89%	92%
Computing labs available to students	325	335	306	300
Computing lab machines available to students	5,600	5,954	5,783	5,320
ITaP instructional lab unique users/semester	30,894	31,500	37,694	37,845
ITaP instructional lab use/semester (in hours)	1.1MM	1.25MM	1.23MM	1.12MM
Pages printed in ITaP instructional labs daily	88,022	50,838	62,081	61,736
Course management:				
Courses using Blackboard Vista/semester	2,575	2,727	3,311	5,988
Faculty using Blackboard Vista/semester	23%	23%	27%	54%
Student population using Blackboard Vista/semester	74%	82%	82%	88%
Remote connections to server-based educational applications/semester	94,285	133,659	180,665	173,089

¹ Workstation clusters replaced with server clusters in High Performance Computing.

² Includes all university-owned desktop/notebook computers and workstations in labs, offices, classrooms, research facilities, etc.

³ Use of parallel supercomputers, clusters, and distributed computing cycles for computationally intensive research needs, including simulations and modeling.

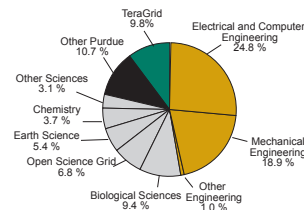
⁴ Using I-Light (Indiana's Optical Fiber Network), Purdue and IU high performance computing resources from the Indiana Distributed Terascale Facility, which has ten Gbps in available bandwidth.

⁵ The National Science Foundation funded TeraGrid infrastructure which is a multi-year effort to build and deploy the world's largest, fastest, distributed infrastructure for open scientific research.

TeraGrid has 40 Gbps in available bandwidth distributed at several national sites, of which the Indiana University-Purdue University Grid (<http://www.purdue.teragrid.org/>) is one.

Research	FY2005-06	FY2006-07	FY2007-08	FY2008-09
High Performance Computing (HPC) ³				
Jobs run	1,065,969	8,833,472	11,105,764	16,902,057
CPU hours used	12,220,189	18,307,337	30,933,128	82,329,586
2008-09 HPC Utilization				
Community Cluster		1,123,399		48,020,929
Non-Community Cluster		157,930		16,968,462
Condon/Opportunistic		15,620,728		17,340,196
TOTAL		16,902,057		82,329,587

High Performance Computing Usage FY2009



Bandwidth available to researchers (in megabits or gigabits per second)

- WL campus: 10-1,000 Mbps
- WL to regional campuses: 1 Gbps
- Intrastate⁴: 10 Gbps
- Interstate⁵: 40 Gbps

Data Storage Capacity and Utilization

