

Glossary

AAA - Authentication, authorization, and accounting protocol
AFRL - Air Force Research Laboratory
AHRQ - HHS's Agency for Healthcare Research and Quality
ANL - DOE's Argonne National Laboratory
ARC - NASA's Ames Research Center
ARL - Army Research Laboratory
ARSC - Arctic Region Supercomputing Center
ASC - DOE/NNSA's Advanced Simulation and Computing program
ASC - U.S. Air Force's Aeronautical Systems Center
BIRN - NIH's Biomedical Informatics Research Network
Black Widow - See X1e
Blue Gene - an IBM supercomputing project dedicated to building a new family of supercomputers optimized for bandwidth, scalability and the ability to handle large amounts of data while consuming a fraction of the power and floor space required by today's fastest systems.
Blue Gene/L - Scalable experimental new supercomputing system being developed by IBM in partnership with DOE/SC and DOE/NNSA; expected to achieve 300-teraflops+ processing speeds
C - C programming language
CAD - Computer-aided design
CAIDA - Cooperative Association for Internet Data Analysis
CAREER - NSF's Faculty Early Career Development program
CAST - DARPA's Compact Aids for Speech Translation program
CHEETAH - NSF's Circuit-switched High-speed End-to-End Architecture network
CIO - Chief Information Officer
CISE - NSF's Computer and Information Science and Engineering Directorate
CMS - HHS's Centers for Medicare and Medicaid Services
COCOMO II - FAA's COConstructive COst MOdel II (to include security)
CSC - Computer Science Corporation
CSR - NSF's Computer Systems Research program
CSTB - Computer Science and Telecommunications Board of the National Academies
DARPA - DoD's Defense Advanced Research Projects Agency
DETER - NSF's cyber DEfense Technology Experimental Research network

DHS - Department of Homeland Security
DOC - Department of Commerce
DoD - Department of Defense
DOE - Department of Energy
DOE/NNSA - DOE/National Nuclear Security Administration
DOE/SC - DOE/Office of Science
DOT - Department of Transportation
DRAGON - NSF's Dynamic Resource Allocation (via GMPLS) Optical Network
EARS - DARPA/NIST Effective, Affordable, Reusable Speech-to-text program
ebXML - electronic business Extensible Markup Language
EMIST - NSF/DHS Evaluation Methods for Internet Security Technology project
EPA - Environmental Protection Agency
ERDC - U.S. Army's Engineering Research and Development Center
ESCHER - Embedded Systems Consortium for Hybrid and Embedded Research, a joint effort of DARPA and NSF
ESMF - Earth System Modeling Framework
ESnet - DOE/SC's Energy Sciences network
ESSC - DOE/SC's Energy Sciences network (ESnet) Steering Committee
ETF - NSF's Extensible Terascale Facility
FAA - DOT's Federal Aviation Administration
FCC - Federal Communications Commission
FDA - HHS's Food and Drug Administration
FIU - Florida International University
FMS - NOAA's Flexible Modeling System
GEOSS - Global Earth Observation System of Systems, a cooperative effort of 34 nations, including the U.S., and 25 international organizations to develop a comprehensive, coordinated, and sustained Earth observation system to help societies understand and address global environmental and economic challenges
GMPLS - Generalized multi-protocol label switching
Grid3 - Project funded by NSF, DOE/SC, and universities that uses the Internet to combine the computational resources of 26 universities and national laboratories to serve the computing needs of more than 10 research groups in particle physics, astrophysics, bioinformatics, and computer science
GSA - General Services Administration
HCI&IM - Human-Computer Interaction and Information Management, one of NITRD's seven Program Component Areas

HCMDSS - HCSS's High Confidence Medical Device Software and Systems activity

HCSS - High Confidence Software and Systems, one of NITRD's seven Program Component Areas

HDCCSR - Highly Dependable Computing and Communications Systems Research program, a joint effort of NASA and NSF

HDPC - NASA's Highly Dependable Computing Platform program

HEC - High-end computing

HEC I&A - HEC Infrastructure and Applications, one of NITRD's seven Program Component Areas

HEC R&D - HEC Research and Development, one of NITRD's seven Program Component Areas

HECRTF - High-End Computing Revitalization Task Force

HEC-URA - HEC University Research Activity, funded by DARPA, DOE/SC, and NSF

HHS - Department of Health and Human Services

HP - Hewlett Packard

HPC - High-performance computing

HPCMPO - OSD's High Performance Computing Modernization Program Office

HPCS - DARPA's High Productivity Computing Systems program

IMPI - NIST's interoperable message-passing interface

INCITE - DOE/SC's Innovative and Novel Computational Impact on Theory and Experiment program

IP - Internet protocol

IPv6 - Internet protocol, version 6

IRS - Internal Revenue Service

ISI - Information Science Institute

IT - Information technology

ITR - NSF's Information Technology Research program

IT R&D - Information technology research and development

IU - Indiana University

JET - LSN's Joint Engineering Team

JETnets - Federal research networks supporting networking researchers and advanced applications development

LANL - DOE's Los Alamos National Laboratory

LBL - DOE's Lawrence-Berkeley National Laboratory

LLNL - DOE's Lawrence Livermore National Laboratory

LSN - Large Scale Networking, one of NITRD's seven Program Component Areas

MAGIC - LSN's Middleware and Grid Infrastructure Coordination Team

MAX - Mid-Atlantic Exchange

MOU - Memorandum of understanding

MPLS - Multi-protocol label switching

MPP - Massively parallel processing

MTU - Maximum transmission unit

NA - National Academies

NASA - National Aeronautics and Space Administration

NAVO - U.S. Navy's Naval Oceanographic Office

NCAR - NSF-supported National Center for Atmospheric Research

NCSA - NSF-supported National Center for Supercomputing Applications

NERSC - DOE/SC's National Energy Research Scientific Computing Center

NHII - National Health Information Infrastructure

NIH - HHS's National Institutes of Health

NIST - DOC's National Institute of Standards and Technology

NITRD - Networking and Information Technology Research and Development

NLANR - NSF-supported National Laboratory for Applied Network Research

NLM - NIH's National Library of Medicine

NNSA - DOE's National Nuclear Security Administration

NOAA - DOC's National Oceanographic and Atmospheric Administration

NOSS - Networking of Sensor Systems

NRT - LSN's Networking Research Team

NRT - NSF/CISE's Networking Research Testbed program

NSA - National Security Agency

NSF - National Science Foundation

NSTC - White House National Science and Technology Council

NWS - NOAA's National Weather Service

OMB - White House Office of Management and Budget

OMNInet - Large-scale metro optical network testbed supported by national labs, universities, Canadian organizations, and vendor partners

ONR - Office of Naval Research

ONT - Optical Networking Testbeds

OSD - Office of the Secretary of Defense

ORNL - DOE's Oak Ridge National Laboratory

OSTP - White House Office of Science and Technology Policy

PCA - Program Component Area

PerMIS - NIST's Performance Metrics for Intelligent Systems

PET - HCPMPO's Programming Environment and Training program

PNL - DOE's Pacific Northwest Laboratory
ProWin - Programmable Wireless Networking
Purple - DOE/NNSA ASC's 100-teraflops IBM SMP supercomputing platform under development, in tandem with Blue Gene/L, at LLNL
QoS - Quality of service
R&D - Research and development
Red Storm - DOE/NNSA ASC's 40-teraflops Cray system under development at SNL
SC - DOE's Office of Science
SciDAC - DOE/SC's Scientific Discovery through Advanced Computing program
SDP - Software Design and Productivity, one of NITRD's seven Program Component Areas
SEIII - NSF's Science and Engineering Information Integration and Informatics program
SEW - Social, Economic, and Workforce Implications of IT and IT Workforce Development, one of NITRD's seven Program Component Areas
SMP - Symmetric multiprocessing
SNL - DOE's Sandia National Laboratory
SSA - Social Security Administration
StarLight - NSF-supported international optical network peering point in Chicago
TF - Teraflop(s), a trillion floating point operations (per second)

TIDES - DARPA/NIST's Translingual Information Detection, Extraction and Summarization program
TREC - The DARPA/NIST Text Retrieval Conference
UCAR - University Corporation for Atmospheric Research
UIC - University of Illinois at Chicago
UIUC - University of Illinois at Urbana-Champaign
UltraScience NET - DOE/SC's experimental research network
UMd - University of Maryland
UNC - University of North Carolina
UnitsML - XML schema for encoding units of measurement
USGS - United States Geological Survey
UW - University of Washington
UWisc - University of Wisconsin
X1 - Cray, Inc., scalable, hybrid scalar-vector high-end computing system developed with support from NSA and OSD
X1e - NSA-supported next generation of Cray X1 known as Black Widow; under development now, is expected to be available in 2006
XML - Extensible markup language