



# GLOSSARY

## 3D

Three-dimensional

## 3MRA

EPA's Multimedia, Multipathway, Multireceptor Risk Assessment modeling system

## 6TAP

IPv6 Transit Access Point

# A

## AAMP7

Latest member of the Advanced Architecture Microprocessor family that supports high-assurance application development exploiting intrinsic partitioning

## ACE

NIST's Automatic Content Extraction program

## ACRT

DOE/SC's Advanced Computing Research Testbeds activity

## ADAPT

NASA's Automatic Data Alignment and Placement Tool

## AeroDB

Aeronautical Database

## AEX

NIST's Automating Equipment Information Exchange project

## AFRL

Air Force Research Laboratory

## AFWA

Air Force Weather Agency

## AHRQ

Agency for Healthcare Research and Quality

## AI&CS

NSF/CISE's Artificial Intelligence and Cognitive Science program

## AIO

FAA's Administrative Information Office

## Altix

A line of computers produced by SGI, Inc.

## ALU

Arithmetic logic unit

## ANL

DOE's Argonne National Laboratory

## ANTD

NIST's Advanced Network Technologies Division

## APDEC

DOE/SC's Algorithmic and Software Framework for Applied Partial Differential Equations ISIC

## API

Application program interface

## AQMA

EPA's Air Quality Modeling Applications program

## AQUAINT

NSA/NIST's Advanced Question and Answering for Intelligence program

## ARDA

Intelligence community's Advanced Research and Development Activity

## ARL

Army Research Laboratory

## ARO

Army Research Office

## ASAP

DOE/NNSA's Academic Strategic Alliance Program

## ASC

DOE/NNSA's Advanced Simulation and Computing program (formerly ASCI, for Accelerated Strategic Computing Initiative)

## ASC

Army Signal Command, a DoD/HPCMPO Major Shared Resource Center

## ASCR or OASCR

DOE/SC's Office of Advanced Scientific Computing Research

## ASC Blue Mountain

DOE/NNSA program's massively parallel 3-teraflops SGI Origin supercomputing platform at Los Alamos National Laboratory

## ASC Purple

DOE/NNSA program's 100-teraflops IBM SMP supercomputing platform under development, in tandem with Blue Gene/L, at Lawrence Livermore National Laboratory

## ASC Q

DOE/NNSA program's 20-teraflops system, based on HP/Compaq technology, at Los Alamos National Laboratory



**ASC Red**

ASC program’s first teraflops-level platform, by Intel, installed at Sandia National Laboratory in 1996

**ASC Red Storm**

DOE/NNSA program’s 40-teraflops Cray system under development at Sandia National Laboratory

**ASC White**

DOE/NNSA program’s massively parallel, 12-teraflops IBM supercomputing platform at Lawrence Livermore National Laboratory

**ATDnet**

DoD’s Advanced Technology Demonstration network

**ATM**

Asynchronous transfer mode

**B**

**BECON**

NIH’s Bioengineering Consortium

**BGP**

Border gateway protocol

**BIO**

NSF’s Biological Sciences Directorate

**BioAPI**

Biometric application programming interface

**BISTI**

NIH’s Biomedical Information Science and Technology Initiative

**BISTIC**

NIH’s Biomedical Information Science and Technology Initiative Consortium

**BLAS**

Basic linear algebra subroutines

**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

**BOSSnet**

BoSton-South network, MIT’s Boston to Washington, D.C., fiber-optic network

**C**

**CAD**

Computer-aided design

**CAF**

Co-Array Fortran

**CAIB**

NASA Columbia Accident Investigation Board

**CaREN2**

California Research and Education Network 2

**CalTech**

California Institute of Technology

**Canarie2**

Canadian Network for the Advancement of Research, Industry, and Education 2

**CAPO**

NASA’s Computer-Aided Parallelizer and Optimizer

**CAST**

DARPA’s Compact Aids for Speech Translation program

**CBEFF**

Common Biometric Exchange File Format

**CCAMP**

Common control and measurement plane

**CCF**

NSF/CISE’s Computing and Communications Foundations Division

**CCM**

DoD/HPCMPO’s Computational Chemistry and Materials Science CTA

**CDROM**

Compact disc read-only memory

**CEA**

DoD/HPCMPO’s Computational Electromagnetics and Acoustics CTA

**CEN**

DoD/HPCMPO’s Computational Electronics and Nanoelectronics CTA

**CERN**

European Laboratory for Particle Physics

**CEV**

NASA’s crew exploration vehicle

**CFD**

Computational fluid dynamics

**CFD**

DoD/HPCMPO’s Computational Fluid Dynamics CTA

**CG**

Coordinating Group

**CHEETAH**

NSF’s Circuit-switched High-speed End-to-End Architecture network

**CHSSI**

DoD/HPCMPO’s Common High Performance Computing Software Initiative



**CI-TEAM**

NSF/CISE's Cyber-Infrastructure Training, Education, Advancement, and Mentoring activity

**CI**

Cyberinfrastructure

**CIAPP**

NASA'S Computational Intelligence for Aerospace Power and Propulsion systems

**CICT**

NASA's Computing, Information, and Communications Technology program

**CIF**

Common industry format

**CIO**

Chief information officer

**CIP**

Critical infrastructure protection

**CISE**

NSF's Computer and Information Science and Engineering Directorate

**CMAQ**

EPA's Community Multi-Scale Air Quality modeling system

**CMM**

Carnegie Mellon University's Software Engineering Institute's Capability Maturity Models

**CNS**

NSF/CISE's Computer and Networking Systems Division

**CoE**

EPA's Center of Excellence

**CONUS**

Continental United States

**CORBA**

Common object request broker architecture

**COTS**

Commercial-off-the-shelf

**CPU**

Central processing unit

**CSD**

NIST/ITL's Computer Security Division

**CSGF**

Computational Science Graduate Fellowship program supported by DOE/SC and DOE/NNSA

**CSM**

DoD/HPCMPO's Computational Structural Mechanics CTA

**CSTB**

Computer Science and Telecommunications Board of the National Research Council

**CSTL**

NIST's Chemical Science and Technology Lab

**CSU**

Colorado State University

**CTA**

DoD/HPCMPO's Computational Technology Area

**D**

**DAML**

DARPA Agent Markup Language

**DARPA**

Defense Advanced Research Projects Agency

**DCE**

Distributed computing environment

**DETER**

NSF's cyber DEFense Technology Experimental Research network

**DHHS**

Department of Health and Human Services

**DHS**

Department of Homeland Security

**DiffServ**

Differentiated services

**DisCom**

DOE/NNSA's Distance Computing program

**DiVAs**

DOE/SC's Distributed Visualization Architecture workshops

**DIVERSE**

NIST's Device-Independent Virtual Environments – Reconfigurable, Scalable, Extensible

**DLMF**

NIST/NSF's Digital Library of Mathematical Functions

**DMF**

SGI's Data Management Facility, a mass storage system

**DMTF**

Distributed Management Task Force

**DNA**

Deoxyribonucleic acid

**DNS**

Domain Name System

**DoD**

Department of Defense

**DoD/HPCMPO**

DoD/High Performance Computing Modernization Program Office



**DoD/OSD**

DoD/Office of the Secretary of Defense

**DOE**

Department of Energy

**DOE/NNSA**

DOE/National Nuclear Security Administration

**DOE/SC**

DOE/Office of Science

**DOJ**

Department of Justice

**DRAGON**

NSF's Dynamic Resource Allocation (via GMPLS) Optical Network

**DREN**

Defense Research and Engineering Network

**DS**

Data Send, a network transmission speed standard

**DSM**

Distributed shared memory

**DTC**

NOAA's Development Test Center

**DUC**

NIST's Document Understanding Conference

**E**

**EARS**

DARPA/NIST Effective, Affordable, Reusable Speech-To-Text program

**ebXML**

electronic business Extensible Markup Language

**ECCO**

NASA's Estimating the Circulation and Climate of the Ocean project

**ECEI**

NIST's Electronic Commerce for the Electronics Industry

**ECS**

NASA's Engineering for Complex Systems program

**EDRAM**

Erasable dynamic random-access memory

**EHR**

NSF's Education and Human Resources Directorate

**EHR**

Electronic health record

**EHRS**

Electronic health record system

**EINs**

NSF's Experimental Infrastructure Networks

**ENG**

NSF's Engineering Directorate

**EPA**

Environmental Protection Agency

**EQM**

DoD/HPCMPO's Environmental Quality Modeling and Simulation CTA

**ERDC**

U.S. Army's Engineering Research and Development Center, a DoD/HPCMPO Major Shared Resource 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

**ESTO**

NASA's Earth Sciences Technology Office

**ETF**

NSF's Extensible Terascale Facility

**F**

**FAA**

Federal Aviation Administration

**FBI**

Federal Bureau of Investigation

**FDA**

Food and Drug Administration

**FEA**

Federal Enterprise Architecture

**FMS**

NOAA's Flexible Modeling System

**FMS**

DoD/HPCMPO's Forces Modeling and Simulation CTA

**FNMOC**

U.S. Navy's Fleet Numerical Meteorology and Oceanography Center

**FPGA**

Field programmable gate array

**FpVTE**

Fingerprint vendor technology evaluation

**FSL**

NOAA's Forecast Systems Laboratory

**FTP**

File transfer protocol



- FY**  
Fiscal year
- G**
- Gbps**  
Gigabits per second
- Gbytes, or GB**  
Gigabytes per second
- GEO**  
NSF's Geosciences Directorate
- GFDL**  
NOAA's Geophysical Fluid Dynamics Laboratory
- Gflops**  
Gigaflops, billions of floating point operations per second
- GGF**  
Global Grid Forum
- GGMAO**  
NASA's Goddard Global Modeling and Assimilation Office
- GHZ**  
Gigahertz
- GigE**  
Gigabit Ethernet
- GIPS**  
Giga-integers per second
- GIS**  
Geographical information system
- GISS**  
NASA's Goddard Institute for Space Studies
- GLASS**  
NIST's GMPLS/Optical Simulation tool project
- GLIS**  
NASA's Goddard Land Information Systems project
- GMPLS**  
Generalized multi-protocol label switching
- GOPS**  
Giga-operations per second
- GSA**  
General Services Administration
- GSFC**  
NASA's Goddard Space Flight Center
- GUI**  
Graphical user interface
- GUPs**  
Giga-updates per second
- H**
- H-ANIM**  
Human animation
- HARD**  
NIST's High Accuracy Retrieval from Documents program
- HBCUs**  
Historically black colleges and universities
- HBM**  
Haskell on Bare Metal
- HCI&IM**  
Human Computer Interaction and Information Management, one of NITRD's seven Program Component Areas
- 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
- 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
- HIT**  
AHRQ's Patient Safety Health Information Technology Initiative
- HL-7**  
Health Level Seven, an electronic medical-records standard
- HP**  
Hewlett Packard
- HPC**  
High-performance computing
- HPCC**  
High-performance computing and communications
- HPCMPO**  
DoD's High Performance Computing Modernization Program Office



- HPCS**  
DARPA's High Productivity Computing Systems program
- HRI**  
NIST's Human Robot Interaction activity
- HSAIs**  
DoD/HPCMPO's High Performance Computing Software Applications Institutes
- HTML**  
HyperText Markup Language
- HVAC**  
Heating, ventilation, air conditioning
- HVAC/R**  
Heating, ventilation, air conditioning, and refrigeration
- I**
- IAD**  
NIST's Information Access Division
- IAFIS**  
FBI's Integrated Automated Fingerprint Identification System
- IAIMS**  
NIH/NLM's Integrated Academic Information Management Systems
- IARG**  
NSA's Information Assurance Research Group
- IBM**  
International Business Machines
- ICAT**  
NIST/ITL/CSD's searchable index of information on computer vulnerabilities
- ICR**  
NITRD Program's Interagency Coordination Report
- IDC**  
A global market intelligence and advisory firm
- IDE**  
Integrated development environment
- IDS**  
NIST's Intrusion Detection System
- IEEE**  
Institute of Electrical and Electronics Engineers
- IETF**  
Internet Engineering Task Force
- IIS**  
NSF/CISE's Information and Intelligent Systems Division
- iLab**  
NASA's Information Power Grid Virtual Laboratory, a software package for creating and monitoring parameter studies of grid resources
- IMPI**  
NIST's interoperable message-passing interface
- IMT**  
DoD/HPCMPO's Integrated Modeling and Test Environments CTA
- INCITE**  
DOE/SC's Innovative and Novel Computational Impact on Theory and Experiment program
- INCITS**  
International Committee for IT Standards
- I/O**  
Input/output
- IP**  
Internet protocol
- IPG**  
NASA's Information Power Grid
- IPSec**  
IP security
- IPTO**  
DARPA's Information Processing Technology Office
- IPv6**  
Internet protocol, version 6
- ISD**  
NIST/MEL's Intelligent Systems Division
- ISICs**  
DOE/SC's Integrated Software Infrastructure Centers
- ISO**  
International Organization for Standardization
- ISPAB**  
NIST's Information Security and Privacy Advisory Board
- ISS**  
International Space Station
- IT**  
Information technology
- ITL**  
NIST's Information Technology Laboratory
- ITR**  
NSF's Information Technology Research program
- IT R&D**  
Information technology research and development
- IU**  
Indiana University
- IUSR**  
NIST's Industry USability Reporting activity



**IV&V**

Independent verification and validation

**iVDGL**

NSF/CISE's International Virtual Data Grid Laboratory

**IWG**

Interagency Working Group

**IXO**

DARPA's Information Exploitation Office

**J**

**Java**

An operating system-independent programming language

**Javaspaces**

Java-based component of the Jini open architecture for networking

**JET**

LSN's Joint Engineering Team

**JETnets**

Federal research networks supporting networking researchers and advanced applications development

**Jini**

Java-based open architecture for development of network services

**K**

**Ka-band**

Kurtz above-band, a portion of the K band of the electromagnetic spectrum ranging from about 18 to 40 GHz; often used in communications satellites

**L**

**LANL**

DOE's Los Alamos National Laboratory

**LBNL or LBL**

DOE's Lawrence-Berkeley National Laboratory

**LEAD**

NSF's Linked Environments for Atmospheric Discovery

**LHNCBC**

NIH/NLM's Lister Hill National Center for Biomedical Communications

**LSN**

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

**LSTAT**

FDA's Life Support for Trauma and Transport device

**LTP**

NASA's Learning Technologies Project

**LTS**

NSA's Laboratory for Telecommunications Sciences

**M**

**MAA**

EPA's Multimedia Assessments and Applications framework

**MAGIC**

LSN's Middleware and Grid Infrastructure Coordination team

**MAX**

Mid-Atlantic Exchange

**Mbytes, or MB**

Megabytes

**MCHIP**

DARPA's Multipoint Congramoriented High-performance Internet Protocol

**MDS**

NASA's Mission Data Systems program

**MEL**

NIST's Manufacturing Engineering Laboratory

**MHz, or MH**

Megahertz

**MIT**

Massachusetts Institute of Technology

**MLP**

Multi-level parallelism

**MoBIES**

DARPA's Model-Based Integration of Embedded Systems program

**MOU**

Memorandum of understanding

**MPEG-7**

Moving Picture Experts Group's multimedia content description interface, release 7

**MPI**

Message-passing interface

**MPICH**

Freely available, high-performance portable implementation of MPI

**MPLS**

Multi-protocol label switching

**MPS**

NSF's Mathematical and Physical Sciences Directorate



**MSID**

NIST's Manufacturing Systems Integration Division

**MSRCs**

DoD/HPCMPO's Major Shared Resource Centers

**MT**

NIST's Machine Translation program

**MTBF**

Mean time between failures

**N**

**NAP**

Network access point

**NASA**

National Aeronautics and Space Administration

**NAVO**

U.S. Navy's Naval Oceanographic Office

**NCAR**

NSF-supported National Center for Atmospheric Research

**NCBI**

NIH/NLM's National Center for Biotechnology Information

**NCEP**

NOAA's National Center for Environmental Prediction

**NCO**

National Coordination Office for Information Technology Research and Development

**NCSA**

NSF-supported National Center for Supercomputing Applications

**NERSC**

DOE/SC's National Energy Research Scientific Computing Center

**NESC2**

National Environmental Scientific Computing Center

**NEST**

DARPA's Networked Embedded Systems Technology program

**NEXRAD**

NOAA's Next Generation Weather Radar System

**NGIX**

Next Generation Internet Exchange point

**NHII**

National Health Information Infrastructure

**NIAP**

NIST/NSA National Information Assurance Partnership

**NIGMS**

NIH's National Institute of General Medical Sciences

**NIH**

National Institutes of Health

**NIMD**

NIST's Novel Intelligence for Massive Data activity

**NISN**

NASA Integrated Services Network

**NIST**

National Institute of Standards and Technology

**NITRD**

Networking and Information Technology Research and Development

**NLM**

NIH's National Library of Medicine

**NLR**

National LambdaRail

**NMI**

NSF Middleware Initiative

**NOAA**

National Oceanographic and Atmospheric Administration

**NO<sub>x</sub>**

Nitrous oxide

**NPACI**

NSF-supported National Partnership for Advanced Computational Infrastructure

**NREN**

NASA Research and Education Network

**NRL**

Naval Research Laboratory

**NRNRT**

National radio network research testbed

**NRT**

LSN's Networking Research Team

**NRT**

NSF/CISE's Networking Research Testbed program

**NS-500**

A GigE security device that uses Virtual Private Network

**NSA**

National Security Agency

**NSF**

National Science Foundation

**NSRL**

National Software Reference Library, joint effort of DOJ, FBI, and NIST

**NSTC**

White House National Science and Technology Council



**NWChem**

Chemistry modeling software developed by DOE's Pacific Northwest National Laboratory

**NWS**

NOAA's National Weather Service

**O****O3K**

An SGI Origin computer

**OASCR or ASCR**

DOE/SC's Office of Advanced Scientific Computing Research

**OAV**

Organic air vehicle

**OC-x**

Optical carrier rate, an optical network transmission standard. The base rate (OC-1) is 51.84 Mbps; higher transmission speeds such as OC-3 or OC-48 are multiples of OC-1.

**OCONUS**

Outside the continental United States

**ODDR&E**

DoD's Office of the Director, Defense Research and Engineering

**OIL**

Ontology inference layer

**OMB**

White House Office of Management and Budget

**ONR**

Office of Naval Research

**OOF**

NIST's Object-Oriented Finite Element Modeling of Material Microstructures software

**OOMMF**

NIST's Object-Oriented MicroMagnetic Computing Framework

**OpenMP**

An open message-passing standard

**ORNL**

DOE's Oak Ridge National Laboratory

**OS**

Operating system

**Osker**

Oregon separation kernel

**OSPF**

Open shortest path first, an interior gateway protocol

**OSS**

Open source software

**OSTP**

White House Office of Science and Technology Policy

**OWL**

Web Ontology Language derived from DAML + OIL

**P****PC**

Personal computer

**PCA**

DARPA's Polymorphous Computing Architectures program

**PCA**

Program Component Area

**PCMon**

PC-based network traffic monitoring, a monitoring and measurement tool that enables detailed analysis of individual traffic flows

**PDE**

Partial differential equation

**PE**

Processing element

**PerMIS**

NIST's Performance Metrics for Intelligent Systems workshop series

**PET**

DoD/HCPMPO's Programming Environment and Training program

**Petaflops**

Quadrillions of floating point operations per second

**PHAML**

NIST's Parallel Hierarchical Adaptive MultiLevel project

**PI**

Principal investigator

**PIM**

Processor-in-memory

**PITAC**

President's Information Technology Advisory Committee

**PKI**

Public key infrastructure

**PlanetLab**

NSF' overlay testbed for disruptive network services

**PMEL**

NOAA's Pacific Marine Environmental Laboratory

**POS**

Packet over SONET

**PPPL**

Princeton Plasma Physics Laboratory

**PSC**

NSF-supported Pittsburgh Supercomputing Center



- PSE**  
Patient safety event
- PSE**  
DOE/NNSA's Problem Solving Environment program
- PU**  
Purdue University
- PVM**  
Parallel virtual machine
- Q**
- QCD**  
Quantum chromodynamics
- QFS**  
A Sun Microsystems computer
- QoS**  
Quality of service
- R**
- R&D**  
Research and development
- R&E**  
Research and engineering
- RAiN**  
NIST's Resilient Agile Networking program
- RAMAS**  
NASA's Resource Allocation, Measurement and Adjustment System
- RAS**  
Reliability, availability, serviceability
- RAW**  
DARPA's Reconfigurable Architecture Workstation activity
- RDF/S**  
Resource description framework/schema
- RFI**  
Request for information
- RFP**  
Request for proposals
- RLV**  
NASA's reusable launch vehicle
- RMS**  
DARPA's Rapid Multilingual Support one-way translation software
- RONs**  
Regional operational networks
- RSS**  
NOAA's Really simple syndication
- S**
- S&T**  
Science and technology
- SACS**  
DARPA's Security-Aware Critical Software program
- SAPP**  
DOE/SC's Scientific Applications Pilot Programs
- SAS**  
DoD/HPCMPO's Software Application Support program
- SBE**  
NSF's Social, Behavioral, and Economic Sciences Directorate
- SCADA**  
Supervisory control and data acquisition
- SCI**  
NSF/CISE's Shared Cyberinfrastructure Division
- SciDAC**  
DOE/SC's Scientific Discovery through Advanced Computing program
- SCS**  
Simulation and Computer Science, part of DOE/NNSA's ASC program
- SDCTD**  
NIST/ITL's Software Diagnostics and Conformance Testing Division
- SDSC**  
NSF-supported San Diego Supercomputing Center
- SDP**  
Software Design and Productivity, one of NITRD's seven Program Component Areas
- SEC**  
DARPA's Software-Enabled Control program
- SEI**  
NASA's Software Engineering Initiative
- SEW**  
Social, Economic, and Workforce Implications of IT and IT Workforce Development, one of NITRD's seven Program Component Areas
- SGI**  
Silicon Graphics, Inc.
- SI**  
System Integrator, type of award made under NSF Middleware Initiative
- SIMA**  
NIST/MEL's Systems Integration for Manufacturing Applications program
- SIP**  
Session-initiated protocol



<b>SIP</b> DoD/HPCMPO's Computational Signal/Image Processing CTA	<b>STI</b> NSF's Strategic Technologies for the Internet program	<b>TCS</b> NSF-supported University of Pittsburgh terascale computing system
<b>SMP</b> Symmetric multiprocessing	<b>STM1</b> Synchronous transport mode 1 (155 Mbps)	<b>TES</b> Transportable Earth Station, NREN mobile ground control center for distributed and grid-based scientific experiments
<b>SMT/CMP</b> Simultaneous multithreading/chip multiprocessing, a kind of high-throughput processor	<b>STT</b> Speech-to-text	<b>Tflop, or TF</b> Teraflop, a trillion floating point operations
<b>SoD</b> NSF/CISE's Science of Design program	<b>SUNMOS</b> Sandia University of New Mexico Operating System	<b>TIDES</b> DARPA/NIST's Translingual Information Detection, Extraction and Summarization program
<b>SODA</b> Service-oriented data access	<b>SuperMUSE</b> EPA's Supercomputer for Model Uncertainty and Sensitivity Evaluation; 400-node Intel-based supercomputing cluster	<b>TIP</b> NLM's Toxicology Information Program
<b>SONET</b> Synchronous optical network	<b>SuperNet</b> DARPA's advanced research network	<b>TNT</b> NIST's Template Numerical Toolkit
<b>SP</b> IBM line of scalable power parallel systems	<b>SV2</b> A Cray scalar-vector supercomputer	<b>TOPS</b> DOE/SC's Terascale Optimal PDE Solvers ISIC
<b>SPC</b> DoD's Software Protection Center	<b>T</b>	<b>TREC</b> The DARPA/NIST Text Retrieval Conference
<b>SRM</b> NIST's standard reference model	<b>T&amp;E</b> Test and evaluation	<b>TRIPS</b> DARPA PCA program's Tera-op Reliable Intelligently Adaptive Processing System-x
<b>SRS</b> Self-regenerative systems	<b>TACC</b> Texas Advanced Computing Center	<b>TRL</b> NASA's Technology Readiness Level scale
<b>SSI</b> Single system image, an operating system architecture	<b>TAF-J</b> NASA's Tool Agent Framework-Java	<b>TSTT</b> DOE/SC's Terascale Simulation Tools and Technologies ISIC
<b>SSP</b> DOE/NNSA's Stockpile Stewardship Program	<b>Tbyte, or TB</b> Terabyte, a trillion bytes	
<b>StarLight</b> NSF-supported international optical network peering point in Chicago	<b>TDT</b> NIST's Topic Detection and Traction program	
<b>STEM</b> Science, technology, engineering, and mathematics	<b>TCO</b> Total cost of ownership	
	<b>TCP</b> Transmission control protocol	



## U

- UA**  
NIST's Uncertainty Analysis framework
- UA**  
Universal access
- UAV**  
Unmanned air vehicle
- UCAID**  
University Consortium for Advanced Internet Development
- UCAR**  
University Corporation for Atmospheric Research
- UltraScience Net**  
DOE/SC's experimental research network
- UnitsML**  
NIST/DOE/SC's XML schema for encoding units of measurement
- UPC**  
Unified parallel C, a programming language
- US VISIT**  
DHS's United States Visitor and Immigrant Status Indicator Technology
- UWB**  
Ultrawide band

## V

- V&V**  
Verification and validation
- VACE**  
ARDA's Video Analysis and Content Extraction program
- vBNS+**  
NSF's very high-performance Backbone Network Services plus
- VIEWES**  
DOE/NNSA's Visual Interactive Environment for Weapons Simulation
- VPN**  
Virtual private network
- VRML**  
Virtual Reality Modeling Language

## W

- W3C**  
World Wide Web Consortium
- WAN**  
Wide-area network
- WAN-in-Lab**  
NSF's wide-area-network laboratory project, part of the EIN program
- Web3D**  
Communicating with real-time 3D across applications, networks, and XML Web services

## WPAN

Wireless personal area network

## WRF

NOAA's Weather Research and Forecast program

## X

### X1

Cray, Inc. scalable, hybrid scalar-vector high-end computing system developed with support from NSA and ODDR&E

### X1e

NSA-supported next generation of Cray X1 known as Black Widow; under development now, is expected to be available in 2006

### X3D

An extensible open file format standard for 3D visual effects, behavioral modeling, and interaction

### XML

Extensible markup language that is more generalized than HTML and can be used for tagging data streams more precisely and extensively