Index

A
Advanced Data Mining and Integration Research for Europe (ADMIRE) 297
Advanced Simulation and Computing (ASC) 126, 145
affined projection 326
A Knowledge Base (KB) 11
AMD Opterons 124
Application Processing Element (APE) 302
artificial neural network (ANN) 106
Attribute Certificate (AC) 236
Automatic Mesh Refinement (AMR) 156

B
bibliographic information base (BIB) 338
blended learning 316
Branch and bound (B&B) 23
Breadth-First Search (BFS) 94
business-to-business (B2B) 1

C
Center of Excellence (COE) 207
Certification Authority (CA) 236
Community Scheduler Framework (CSF) 60
Computer Mediated Communications (CMC) 311
Conditional Data Flow Graph (CDFG) 101
Content Delivery Networks (CDNs) 76
cooperative learning 311
COPE 100
Cray XT 206

D
Data, Access and Integration Services (DAIS) 261
Data Mining and Integration Language (DMIL) 298
Datawarehouse Interface (DWI) 59
degrees of freedom (DOF) 208
Direct manipulation 329
Direct Simulation Monte Carlo (DSMC) 155
disaster management team (DMT) 276
Discrete element methods (DEM) 172
Distributed Hash Tables (DHTs) 61
Distributed Resource Management Application API (DRMAA) 61
double precision (DP) 135
Dual Correlation Mining (DCM) 21
DUMPI 187
Dynamic Provisioning 92

E
Ecosystem 120
Emergency Response Model (ERM) 254
Enterprise Service Bus (ESB) 6
ES - See Storage Elements.
European Commission (EC) 230
Exascale 124

F
Fault-Tolerance 85
fault-tolerant communication layer 170
Focus Groups 314
Frequent Set Counting (FSC) 103

G
Genetic Algorithms (GA) 23
Global Address Space (GAS) 210
Graphical User Interface (GUI) 259
Grid-Aware Emergency Response Model (G-AERM) 257
Grid Data Service (GDS) 263, 278
Grid Data Services Factory (GDSF) 263
Grid File Access Library (GFAL) 231
Grid License Manager (GridLM) 220
Grid Security Infrastructure (GSI) 232
Index

Grid Services Portal Interface (GSPI) 258

H
Hierarchical Agglomerative Clustering (HAC) 23
high performance computing (HPC) 125, 161
High Performance Linpack (HPL) 139
Holistic Schema Matching (HSM) 22
Home Peer Network (HPN) 78
Hypertext Transfer Protocol (HTTP) 8
HyperTransport (HT) 190, 201
Hypervideo 330

I
InfiniBand 217
Instruction Per Cycle (IPC) 129
Intelligent Transportation Systems (ITS) 284
interconnect, and for the voltage regulator modules (VRMs) 200
intra-site balancing 51

J
JavaScript Object Notation (JSON) 8
Job Description Language (JDL) 220
Job Submission Description Language (JSDL) 61
Juxtapose (JXTA) 80

L
LAMMPS 154
Language Support 169
learner engagement 315
Living Human Digital Library (LHDL) 2
Local Resource Management (LRM) 63

M
MaGate 59, 71
Market Basket Analysis (MBA) 103
massively parallel processing (MPP) 119, 132, 197
MatchMaker 64
Mean Square Error (MSE) 107
Mean Time Between Interrupts (MTBI) 199
message passing interface (MPI) 164, 180, 218
Meta-Scheduling Service (MSS) 60
Miniapps 139
MiniFE 139
miniMD 189
Ministry of Education (MoE) 284
mobile ad hoc network (MANET) 292
Model Driven Architecture (MDA) 11
Modeling, Generation, and Selection (MGS) 21-22
Modularization-based Ontology Matching (MOM) 20
molecular dynamics (MD) 140
MyProxy 232

N
National Nuclear Security Administration (NNSA) 197
numactl 157

O
Oak Ridge National Laboratory (ORNL) 206
OntoBuilder 21
Open Grid Services Architecture – Data, Access and Integration Services (OGSA-DAIS) 269
Open Grid Services Architecture (OGSA) 4
Open Trace Format (OTF) 187
Optimum Dynamic Travel Scheme 291
parallel particle-mesh library (PPM) 161
Parallel Schema Matching (PSM) 22
Partitioned Global Address Space (PGAS) 128
Peer Enterprises (PE) 75
peer-to-peer (P2P) 61, 336
Performance Analysis and Characterization Environment (PACE) 101
PLASMA (Platform for LArge Scale MAtching) 18
Privacy Enhancement for Internet Electronic Mail (PEM) 230
processing elements (PE) 301
PROMPT 349
PROToType PLAtform for Schema Matching (PROTOPLASM) 20
Public Key Infrastructure (PKI) 233

Q
Quality of Service (QoS) 2

R
Read Any Write All (RAWA) 44
Read Once Write All Available (ROWAA) 44
Read Once Write All (ROWA) 44
Really Simple Syndication (RSS) 271
recursive orthogonal bisection (ROB) 167
Reliability, Availability, and Serviceability (RAS) 198
<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request For Information (RFI)</td>
<td>197</td>
</tr>
<tr>
<td>Request For Proposals (RFQ)</td>
<td>197</td>
</tr>
<tr>
<td>resilience</td>
<td>138</td>
</tr>
<tr>
<td>Return on Investment (RoI)</td>
<td>84</td>
</tr>
<tr>
<td>Robust Clustering Using Links (ROCK)</td>
<td>19</td>
</tr>
<tr>
<td>role of the facilitator</td>
<td>316</td>
</tr>
<tr>
<td>Scaleability</td>
<td>25</td>
</tr>
<tr>
<td>Scalable Units (SUs)</td>
<td>145</td>
</tr>
<tr>
<td>Securely Available Credentials Protocol (SACRED)</td>
<td>232</td>
</tr>
<tr>
<td>Secure Sockets Layer (SSL)</td>
<td>232</td>
</tr>
<tr>
<td>semantic match</td>
<td>344</td>
</tr>
<tr>
<td>Semantic Web</td>
<td>5, 337</td>
</tr>
<tr>
<td>Semantic Web Services (SWS)</td>
<td>5</td>
</tr>
<tr>
<td>Service Level Agreements (SLAs)</td>
<td>82</td>
</tr>
<tr>
<td>Service-Oriented Architecture (SOA)</td>
<td>3</td>
</tr>
<tr>
<td>Service-Oriented Computing (SOC)</td>
<td>1</td>
</tr>
<tr>
<td>Shanghai City Traffic Information Center (SCTIC)</td>
<td>284</td>
</tr>
<tr>
<td>Shanghai City Transportation Management Bureau (SCTMB)</td>
<td>284</td>
</tr>
<tr>
<td>Simple API For Grid Application (SAGA)</td>
<td>61</td>
</tr>
<tr>
<td>Simple Object Access Protocol (SOAP)</td>
<td>263</td>
</tr>
<tr>
<td>single precision (SP)</td>
<td>135</td>
</tr>
<tr>
<td>single sign-on (SSO)</td>
<td>261</td>
</tr>
<tr>
<td>Small and Medium-sized Enterprises (SMEs)</td>
<td>309</td>
</tr>
<tr>
<td>SmartGRID</td>
<td>59</td>
</tr>
<tr>
<td>Smart Resource Management Layer (SRML)</td>
<td>59</td>
</tr>
<tr>
<td>Smart Signaling Layer (SSL)</td>
<td>59</td>
</tr>
<tr>
<td>smoothed particle hydrodynamics (SPH)</td>
<td>172</td>
</tr>
<tr>
<td>Soft Systems Methodology (SSM)</td>
<td>254</td>
</tr>
<tr>
<td>Statement Of Work (SOW)</td>
<td>197</td>
</tr>
<tr>
<td>Stochastic Automata Networks (SANs)</td>
<td>101</td>
</tr>
<tr>
<td>Stockpile Stewardship Program (SSP)</td>
<td>126</td>
</tr>
<tr>
<td>Storage Elements</td>
<td>42, 46</td>
</tr>
<tr>
<td>Structural Simulation Toolkit (SST)</td>
<td>136, 181</td>
</tr>
<tr>
<td>Support Vector Machine (SVM)</td>
<td>348</td>
</tr>
<tr>
<td>Through-Silicon Vias (TSVs)</td>
<td>137</td>
</tr>
<tr>
<td>Time-Bound Execution</td>
<td>90</td>
</tr>
<tr>
<td>Topologies</td>
<td>164</td>
</tr>
<tr>
<td>Traffic Information Grid (TIG)</td>
<td>285</td>
</tr>
<tr>
<td>Tri-lab Linux Capacity Cluster (TLCC)</td>
<td>145</td>
</tr>
<tr>
<td>Triple Graph Grammar (TGG)</td>
<td>11</td>
</tr>
<tr>
<td>Tripod Operating System Software (TOSS)</td>
<td>145</td>
</tr>
<tr>
<td>Unified Parallel C (UPC)</td>
<td>210</td>
</tr>
<tr>
<td>video annotations</td>
<td>324</td>
</tr>
<tr>
<td>Virtual Organisation Membership Service (VOMS)</td>
<td>236</td>
</tr>
<tr>
<td>Virtual Organization (VO)</td>
<td>216</td>
</tr>
<tr>
<td>Web Ontology Language (OWL)</td>
<td>338</td>
</tr>
<tr>
<td>Web Service Choreography Definition Language (WS-CDL)</td>
<td>11</td>
</tr>
<tr>
<td>XML</td>
<td>8</td>
</tr>
</tbody>
</table>