

Index

• A •

abstraction, 182–183
abstraction layer, virtualization, 184
access control, 283
access management
 basic description of, 53
 permission, 173
 security, 161
ACID (atomicity, consistency, isolation,
 and durability), 283
activity log, 201–202
administration, security, 201
anti-DOS technology, 196
application inventory, 176
application management, 137
application monitoring, 160
application self-service
 defined, 102
 identity management capability, 132
 portal interface, 133
 resource provisioning capability, 133
architecture, 283
archive, 177, 283
assessment. *See also* evaluation
 questions to ask during, 78
 roadblocks, identifying, 78
 as step-by-step approach to
 understanding business, 77
 technical and organizational readiness, 77
 technical requirement, 77
asset
 collection, 215
 configuration management and, 52
 digital, 18
 enterprise physical, 22
 IT (information technology), 19, 22–23
 mechanical, 18
 service component as, 31
 work environment, 18
asset discovery application, 102, 135

asset management
 client management, 159
 data center, 128–129
 defined, 283
 Sherbrooke school, 265
asset management application, 101
atomicity, consistency, isolation, and
 durability (ACID), 283
attack, 195–196
audit, 203, 283
audit trail, 283
authentication, 199–200, 283
automatic login termination, 196
automation
 backup, 159
 client management, 162
 cloud computing, 190
 do's and don'ts, 277
 importance of, 65
 IT process, 133
 restart of failed virtual machine, 185
 security, 161
 service planning, 65–67
 software, 65–67
 workload, 134
automation process, Medical Center of
 Central Georgia, 241–242
availability management
 design and development, 50
 desktop and device management, 167

• B •

backup
 automated, 159
 data resource management, 137
 defined, 283
 hard drive media, 174
 optical disc media, 175
 strategy, 175
 tape media, 174

- bandwidth, 136, 283
- Basel II, 284
- batch, 284
- behind-the-scenes management activity, 11–12
- best practices. *See also* standards
 - basic description of, 35–36
 - benefits of organizations providing, 37–38
 - certification program as, 75
 - CIBER service provider, 271
 - companies benefiting from, 39
 - companies reluctant to use, 38–39
 - defined, 284
 - do's and don'ts, 277–278
 - Elbit Systems of America, 231–232
 - eTOM resource, 44
 - IBC (Independence Blue Cross), 245–246
 - importance of, 36
 - IT, 23
 - IT governance, 115–117
 - ITIL integration, 55–56
 - ITIL resource, 39–41
 - maturity model, 43
 - Medical Center of Central Georgia, 242
 - resources, 37–39
 - service innovation, 38
 - Sherbrooke school, 266
 - as starting point for planning, 36
- binding, 284
- biometric, 284
- black box, 284
- blade cabinet, 165
- board member, IT governance, 116
- books, ITIL
 - Continual Service Improvement*, 54
 - Service Design*, 49–51
 - Service Operation*, 52–53
 - Service Strategy*, 48–49
 - Service Transition*, 51–52
- botnet, 195
- BPEL (Business Process Execution Language), 284
- BPM (business process management), 284
- brand damage cost, 92
- broker, 284
- browser, 284
- BSM (business service management)
 - basic description of, 139
 - business service level, 210
 - data center, 222
 - defined, 208
 - example of, 212
 - IT service level, 210–211
 - KPI, 208–209
 - service level, 209
 - SLA (service-level agreement), 211
 - well developed, 213
- bus, 284
- business model layer
 - Business Service, 87, 89–90
 - Computer Hardware, 86, 88
 - Facilities and Data Center, 86, 88
 - Information/Data, 86–89
 - service management, 95
 - Software/Applications, 87, 89
 - Staff/Operatives, 87, 89
 - viewing service management in, 84–85
- business objectives do's and don'ts, 275
- business process
 - behind-the-scenes management activity, 12
 - defined, 285
 - do's and don'ts, 276
 - Elbit Systems of America, 229
 - SOA (service oriented architecture), 70
- Business Process Execution Language (BPEL), 284
- business process management (BPM), 284
- business process model, 285
- business project, 219
- business rule, 285
- business service, Cisco, 233
- business service level, 210
- business service management. *See* BSM
- Business Services business model layer, 87, 89–90
- Butler, Harry (Elbit Systems of America IT project manager), 228

• C •

- Capability Maturing Model Integration (CMMI)
 - basic description of, 37
 - defined, 285
 - Web site, 37, 281
- capacity management
 - design and development, 50
 - PPM (project portfolio management), 220
 - virtualization foundation issue, 184
- catalog
 - Cisco, 232–233
 - control and compliance data, 117
 - defined, 292
 - design and development, 50
 - Elbit Systems of America, 229–230
- center of excellence process, 75, 285
- central service management reporting, 138
- certification
 - organizational, 44
 - personal, 44
 - professional, 44
 - program, 45, 75
 - standard versus, 44–45
 - value of, 45
- change cost, 93–94
- change management
 - Business Services business model layer, 89–90
 - client management, 160–161
 - Computer Hardware business model layer, 88
 - configuration, 137
 - cultural change, 276
 - customer expectation, responding to, 31
 - defined, 285
 - Facilities and Data Center business model layer, 88
 - hardware provisioning, 160
 - Information/Data business model layer, 88–89
 - KPI, 31
 - network management, 135–136
 - performance degradation stemming from, 149
 - performance planning, 69
 - PPM (project portfolio management), 219–220
 - as service desk function, 144
 - software distribution and upgrade, 160
 - Software/Applications business model layer, 89
 - Staff/Operatives business model layer, 89
 - transition assessment, 51–52
 - virtualization, 188
- change, disruptive and predictable, 93
- CI (configuration item), 148
- CIBER service provider
 - best practices, 271
 - company description, 267–268
 - ITO (IT Outsourcing Division), 268
 - reporting solution, 269
 - SLA, 269–271
 - troubleshooting solution, 268–269
- Cisco
 - business service, 233
 - client service, 233
 - CMDB enhancement, 233–235
 - customer-experience mindset, 235
 - foundation service, 233
 - multilayer cataloging, 232–233
 - SLA, 234
 - virtualization groundwork, 234
- client management
 - asset management, 159
 - automation, 162
 - change management, 160–161
 - client domain and, 157
 - compliance, 162
 - integration, 162
 - policy, 162
 - process areas, 158
 - processes, 156
 - security, 161
 - service expectation, meeting, 166–167
 - service monitoring, 159–160
 - standard, 162
 - technology, 156

- client service, Cisco, 233
- client virtualization, 164–165
- client/server, 285
- cloud computing
 - automation, 190
 - basic description of, 138
 - customer, 191–192
 - defined, 189–190, 285
 - self-service model, 189
 - SLA, 192
 - standardization, 190
 - as utility computing, 190–191
 - virtualization, 190
- clustering, 185
- CMDB (configuration management database)
 - asset discovery application, 102
 - asset management application, 101
 - basic description of, 98–99
 - Cisco, 233–235
 - configuration management, 103–104
 - data center, 223
 - defined, 285
 - Elbit Systems of America, 230–231
 - identity management, 102–103
 - integration infrastructure, 99–101
 - KPI, 107
 - maturity of service automation, 106–107
 - service management applications, 104–105
 - Sisters of Mercy Health System, 249
 - strategy, 106
- CMMI (Capability Maturing Model Integration)
 - basic description of, 37
 - defined, 285
 - Web site, 37, 281
- COBIT (Control Objectives for Information and Related Technology)
 - basic description of, 37
 - defined, 285
 - development of, 42
 - discussed, 23
 - ITIL best practices, 56
 - popularity and acceptance of, 42
 - Web site, 37, 281
- collection, asset, 215
- commercial constraint, 29
- Commission scolaire de la Région-de-Sherbrooke. *See* Sherbrooke school.
- communication, IT governance, 114
- compliance
 - archive, 177
 - behind-the-scenes management
 - activity, 12
 - cataloging, 117
 - client management, 162
 - data center, 122, 125, 127, 222
 - identity management, 199
- component service, 17, 30–31, 285–286
- Computer Hardware business model layer, 86, 88
- computer system. *See also* CMDB
 - components of, 96–97
 - how service management affects, 97–98
 - network, 96–97
- configuration item (CI), 148
- configuration management
 - advent of EAI technology, 104
 - change, 137, 161
 - data gathering, 103
 - defined, 52, 286
 - performance degradation stemming from, 149
 - as service desk function, 144
 - software product, 103–104
- configuration management database. *See* CMDB
- consolidated service desk, 143
- container, 286
- content management system, 173
- Continual Service Improvement (ITIL)*, 54
- continuity management, 50
- continuous workload, 123
- contract management, 51
- control and compliance data, 117
- Control Objectives for Information and Related Technology. *See* COBIT
- corruption, data, 196
- cost
 - brand damage, 92
 - change, 93–94
 - device, 159
 - help desk, 199
 - lost business, 92
 - monitoring and measurement process, 80

optimization, 91–92
 repairs, 92
 risk, 92–93
 support, 90–91, 167
 CPU cycle, 190
 CRM (customer relationship management), 286
 cultural change planning, 276
 customer
 agreed-to rules and terms, 10
 assessing wants and needs of, 60–61
 cloud computing, 191–192
 feedback, 30
 loyalty, 258
 service provider/customer collaboration, 13
 view of service, 10–11
 customer expectation
 education as, 74
 how to measure, 30
 identifying, 26–27
 responding to changes of, 30
 customer goal, 11
 customer relationship management (CRM), 286
 customer satisfaction
 basic description, 25
 high service expectation, 28
 key performance indicator, 29

• D •

data
 corruption, 196
 Information/Data business model layer, 86–89
 storage and retrieval, 172–174
 structured, 171
 unstructured, 172
 data analysis, 201
 data audit, 203
 data center
 accelerated technology change, 126
 application self-service, 132–133
 asset optimization, 128–129
 behind-the-scenes management activity, 12
 BSM (business service management), 139, 222
 central service management reporting, 138
 CMDB (configuration management database), 223
 compliance, 122, 125, 127, 222
 continuous workload, 123
 corporate and IT strategy, 217–218
 data resource management, 136–137
 day-to-day management, 215
 disaster recovery, 130–131
 evolutionary road map for, 222
 facility management, 129–130
 as factory example, 122–123
 hardware management, 134–136
 IT governance, 125, 128, 222
 IT process automation, 133
 lack of integration, 124
 long-term evolution, 215
 moving desktop to, 163–165
 multiple, 86, 121
 office space, 129
 optimization, 124–126
 planning, 217–218
 power requirement, 125
 PPM (project portfolio management), 218–221
 reporting, 138
 resource management, 124
 scheduled workload, 123
 security, 125
 service desk, 222
 service management infrastructure, 138–139
 as single set of resource, 122
 software environment management, 137
 strategy, 139, 223
 supplier management, 126–127
 typical myriad of servers, 121
 unscheduled workload, 123
 virtualization technology, 125
 workload automation, 134
 workload management, 131–133
 data cleansing, 286
 data collation and managing, 199
 data fabric, 136, 286
 data federation, 286

- data gathering
 - configuration management, 103
 - as service plan, 61
 - data management
 - archiving, 177
 - data delivery, 171
 - disaster recovery, 176–177
 - elements of, 171
 - security, 174–175
 - SLA, 169
 - speed of data access and uploading, 174
 - storage and retrieval, 172–174
 - strategy, 170
 - data profiling, 286
 - data quality, 286
 - data resource management
 - backup and recovery, 137
 - data services and data fabric, 136
 - database management, 137
 - storage, 136
 - data theft, 196
 - data transformation, 286
 - data warehouse, 286
 - database. *See also* CMDB
 - defined, 286
 - in-memory, 173
 - performance degradation stemming from, 150
 - query, 173
 - RDBM, 172
 - database management, 137
 - decoupling, 180
 - demand management, 49
 - denial-of-service (DOS) attack, 195
 - departmental service desk, 143
 - deployment management, 52
 - design and development
 - availability management, 50
 - capacity management, 50
 - information security management, 50
 - IT service continuity management, 50
 - monitoring and measurement process, 78–79
 - as road map for moving forward, 78–79
 - service-catalog management, 50
 - service-level management, 50
 - supplier and contract management, 51
 - well-integrated infrastructure
 - importance, 79
 - desktop
 - moving into data center, 163–165
 - real versus virtual, 165
 - desktop and device management
 - availability management, 167
 - client management, 156–157
 - hardware asset register, 159
 - hardware management, 135–136
 - KPI, 167
 - performance degradation stemming from, 150
 - server blade, 165
 - Sherbrooke school, 265
 - software license control, 159
 - software register development, 159
 - device cost, 159
 - Diaz, Guillermo Jr. (Cisco IT vice president), 233
 - digital-based service, 9–10
 - digital deception software, 202
 - digital tool, 18
 - disaster recovery
 - application inventory, 176
 - business-impact analysis, 176
 - data center, 130–131
 - operating procedure, 177
 - risk analysis, 176
 - team, 176
 - testing and maintenance, 177
 - disc, 166, 175
 - disruptive change, 93
 - distributed processing, 287
 - DOS (denial-of-service) attack, 195
 - DuBeau, Dan (Varian Medical System program manager), 236
 - dynamic virtualization, 187
- **E** ●
- EAI (enterprise application integration), 104
 - early binding, 287
 - e-discovery, 177
 - education
 - center of excellence process, 75
 - certification class, 75
 - as crucial component, 74–75
 - customer expectation, 74
 - education industry, 263–266

efficiency improvement, 111–112
 Elbit Systems of America
 basic description, 227
 best practices, 231–232
 business process, 229
 CMDB implementation, 230–231
 service catalog creation, 229–230
 service desk implementation, 228–229
 virtualization employment, 231
 e-mail, 172–173
 embedded hypervisor, 182
 emulation, 180
 encapsulation, 180
 encryption, 203–204
 enhanced Telecom Operations Map.
 See eTOM
 enterprise application integration
 (EAI), 104
 enterprise content management
 system, 173
 enterprise physical asset, 22
 ERP (enterprise resource planning),
 246, 287
 ESB (enterprise service bus), 106–107, 287
 eSCM (eSourcing Capability Model)
 basic description of, 37
 defined, 287
 Web site, 281
 ETL (Extract-Transform-Load), 287
 eTOM (enhanced Telecom
 Operations Map)
 basic description of, 37
 defined, 287
 discussed, 23
 ITIL best practice integration, 56
 TM Forum, 44
 Web site, 37, 281–282
 evaluation, 52. *See also* assessment
 event management
 basic description of, 53
 diagnosing problems, 145, 147–148
 reporting on event, 145
 as service desk function, 144–145
 execution, service, 28
 Extensible Markup Language (XML), 295
 Extensible Stylesheet Language
 Transformation (XSLT), 295
 Extract-Transform-Load (ETL), 287

• F •

Facilities and Data Center business model
 layer, 86, 88
 facility management
 asset optimization, 128–129
 data center, 129–130
 disaster recovery, 130–131
 KPI, 131
 fault tolerance, 287
 federation, 287
 feedback, 30
 file server, 173
 file system virtualization, 182
 financial institution, 12
 financial management
 service planning, 63
 strategy, 49
 firewall breach, 195
 firewall maintenance, 196
 fixed media, 174
 Flammini, Steve (Partners HealthCare chief
 information officer), 250
 Fort, Robert (Virgin Entertainment Group
 chief information officer), 254
 forum, 44
 foundation service, Cisco, 233
 framework, 287
 fraud, 196

• G •

Google
 as good example of IT service
 management, 216
 IT strategy, 217
 search index, 216
 governance implementation, 63–65. *See*
 also IT governance
 GPL (GNU General Public License), 287
 granularity, 287
 grid computing, 288

• H •

hacker, 195
 hard drive, 174

- hardware
 - abstraction, 182–183
 - Computer Hardware business model layer, 86, 88
 - desktop and device management, 134–136
 - network management, 135–136
 - provisioning and virtualization, 135, 160, 186–187
 - health care
 - IBC (Independence Blue Cross), 242–246
 - Medical Center of Central Georgia, 240–242
 - Partners HealthCare, 250–252
 - Sisters of Mercy Health System, 246–249
 - help desk cost, 199
 - HIPPA (Health Insurance Portability and Accountability Act), 118, 162, 239, 288
 - HIPS (host-based intrusion protection system), 202
 - honeynet, 202
 - honeypot, 202
 - hospitality industry, 257–261
 - hosted hypervisor, 182
 - HTML (Hypertext Markup Language), 288
 - HTTP (Hypertext Transport Protocol), 288
 - Hurwitz & Associates Web site, 4, 279
 - hypervisor, 182, 188
- 1 ●
- IBC (Independence Blue Cross)
 - best practices, 245–246
 - company description, 242–243
 - IT, 243–244
 - OCC (Operational Control Center), 243–245
 - identity management
 - application self-service, 102, 132
 - aspects of, 199–201
 - authentication, 199–200
 - benefits of, 198
 - compliance benefit, 199
 - data analysis, 201
 - data collation and management, 199
 - defined, 288
 - improved security benefit, 198
 - integration, 199
 - need for, 103
 - provisioning, 200
 - reduced cost benefit, 198–199
 - security, 161
 - security administration, 201
 - single sign-on capability, 102, 200
 - IEC (International Electrotechnical Commission)
 - ISO/IEC 20000 standard, 42, 56
 - ISO/IEC 38500 standard, 42, 56
 - ISO/IEC standards, 41
 - IHG (Intercontinental Hotels Group)
 - center of excellence creation, 258–260
 - company description, 258
 - customer loyalty, 258
 - domain owners, collaboration among, 260
 - governance process, finding balance in, 261
 - service-level management, 260
 - service life-cycle management, 259–260
 - immersive service, 17
 - implementation, service management, 10–11
 - improvement
 - service measurement, 54
 - service reporting, 54
 - incident management
 - basic description of, 53
 - defined, 147
 - multiple event, 148
 - performance planning, 69
 - as service desk function, 144
 - Sherbrooke school, 265
 - Independence Blue Cross (IBC)
 - best practices, 245–246
 - company description, 242–243
 - IT, 243–244
 - OCC (Operational Control Center), 243–245
 - industrial sector service, 8
 - information analysis, 22
 - information integration, 288
 - information security management, 50
 - Information Systems Audit and Control Association (ISACA), 42, 280–281
 - information technology. *See* IT

- Information Technology Infrastructure Library. *See* ITIL
- Information/Data business model layer, 86–89
- infrastructure, 288
- infrastructure project, PPM, 220–221
- in-memory database, 173
- input, 16–18
- integration
 - client management, 162
 - identity management, 199
- integration infrastructure, CMBD
 - basic description of, 99
 - current state of technology, 100
 - overrides, 101
- International Electrotechnical Commission.
See IEC
- International Organization for Standardization. *See* ISO
- Internet, 288
- interoperability, 288
- IP (Internet Protocol), 288
- ISACA (Information Systems Audit and Control Association), 42, 280–281
- ISO (International Organization for Standardization)
 - basic description of, 37
 - defined, 289
 - development of, 41
 - ISO 9001 standard, 41–42
 - ISO/IEC 20000 standard, 42, 56
 - ISO/IEC 38500 standard, 42, 56
 - ISO/IEC standards, 41
 - as IT governance resource, 118
 - standard, 280
 - Web site, 37, 280
- isolation, 180
- IT (information technology)
 - asset, 22–23
 - asset and tool, 19
 - best practices, 23
 - enterprise physical assets, 22
 - IBC (Independence Blue Cross), 243–244
 - security, 137
 - service delivery and oversight, 23–24
 - service management need, 73–74
 - IT as a service (ITaaS), 232
- IT governance
 - balancing IT and business requirement, 112–113
 - best practices, 115–117
 - board member, 116
 - communication, 114
 - control and compliance data, 117
 - data center, 125, 128, 222
 - do's and don'ts, 276–277
 - efficiency improvement, 111–112
 - ISO resource, 118
 - ITIL resource, 118
 - KPI, 113
 - making governance work, 114–115
 - monitoring and measurement process, 110–111, 113–114
 - performance indicator, 110
 - policy, 112
 - process flow, 116
 - process optimization, 115
 - regulatory and competitive environment-based, 111
 - roles of, 109–112
 - strategy, 112
 - support, 110
 - viewing from holistic business perspective, 112
- IT Governance Institute (ITGI), 42
- IT process automation, 133
- IT service level, 210–211
- IT Service Qualification Center (ITSqc)
 - Web site, 37
- ITaaS (IT as a service), 232
- ITGI (IT Governance Institute), 42
- ITIL (Information Technology Infrastructure Library)
 - basic description of, 37
 - best practices integration, 55–56
 - books describing best practices, 39–40
 - certification program, 45
 - Continual Service Improvement*, 54
 - defined, 289
 - development of, 40
 - discussed, 23
 - downloading books from, 47
 - implementation consideration, 54–55
 - as IT governance resource, 118

ITIL (Information Technology Infrastructure Library) (*continued*)
Service Design, 49–51
Service Operation, 52–53
Service Strategy, 48–49
Service Transition, 51–52
 Version 3, 48
 versions, 40–41
 Web site, 37, 280

ITIL Central Web site, 280

ITSqc (IT Services Qualification Center)
 Web site, 37

• J •

JCA (J2EE Connector Architecture), 289

• K •

knowledge management, 52, 144

KPI (key performance indicator)
 BSM (business service management), 208–209
 change management, 31
 CMDB, 107
 customer satisfaction, 29
 defined, 289
 desktop and device management, 167
 facility management, 131
 IT governance, 113
 service level, 151–152
 supplier management, 127

• L •

LAMP, 289

late binding, 289

layers, business model
 Business Services, 87, 89–90
 Computer Hardware, 86, 88
 Facilities and Data Center, 86, 88
 Information/Data, 86–89
 Software/Applications, 87, 89
 Staff/Operatives, 87, 89

leadership, 77

legacy application, 289

license management, 137, 184

local service desk, 143

log file, 201–202

login termination, 196

loosely coupled component, 70, 289

lost business cost, 92

loyalty, customer, 258

• M •

malware, 289

manufactured product, 8–10

manufacturing
 Cisco, 232–235
 Elbit Systems of America, 228–232
 Varian Medical Systems, 235–238

market research, 60

marketing, 11

markup language, 289

mashup, 289

master–slave, 290

measurement. *See* monitoring and measurement process

mechanical tool, 18

Medical Center of Central Georgia
 automation process, 241–242
 best practices establishing, 242
 company description, 240
 technical support center, 240–241

memory, 180

Message Oriented Middleware (MOM), 290

metadata, 290

middleware, 290

mirrored system, 185

mission critical, 290

MOM (Message Oriented Middleware), 290

monitoring and measurement process
 cost structure, 80
 design and development, 79–80
 IT governance, 110–111, 113–114
 Virgin Entertainment Group, 254–256

MySQL database, 290

• N •

NAS (network access storage), 185

native hypervisor, 182

.NET framework, 290

Netflix company
 incident management example, 69
 as service management example, 58–59
 strategy example, 60

- network
 - computer system, 96–97
 - defined, 290
 - NAS (network access storage), 185
 - performance degradation stemming from, 149
 - SAN (storage area network), 185
 - VPN (virtual private network), 194
 - network access storage (NAS), 185
 - network intrusion-detection system (NIDS), 202
 - network management
 - asset discovery application, 135
 - bandwidth, 136
 - change management, 135–136
 - traffic monitoring, 135
 - virtualization foundation issues, 184, 188
 - NIDS (network intrusion-detection system), 202
 - Nikitin, Alex (*Storage Area Networks For Dummies*, 2nd Edition), 185
 - NIPS (network-based intrusion protection system), 202
 - NOC (network operations center), 244
- ○ ●
- OASIS (Organization for the Advancement of Structured Information Standards), 290
 - OGC (Office of Government Commerce), 48
 - open source, 290
 - operating procedure, disaster recovery, 177
 - operating system
 - Software/Applications business model layer, 87, 89
 - streaming, 164
 - operations
 - access management, 53
 - event management, 53
 - incident management, 53
 - problem management, 53
 - request fulfillment, 53
 - optical disc, 175
 - optimization
 - do's and don'ts, 276
 - IT governance, 115
 - service component, 31
 - workload, 124–126
 - optimization cost, 91–92
 - organization
 - readiness assessment, 67–68
 - what service management can do for, 57–59
 - Organization for the Advancement of Structured Information Standards (OASIS), 290
 - organizational certification, 44
 - outcome of service, 16
 - output
 - products and service outcome, 16
 - service model example, 16–18
 - oversight system
 - information analysis, 22
 - physical system, 22
 - service delivery and, 23–24
 - standardized process model and, 21
- p ●
- partitioning, 180
 - Partners HealthCare
 - capacity need planning, 251–252
 - company description of, 250
 - service monitoring, 250–251
 - team role identification, 252
 - password-cracking software, 196
 - patch management, 161
 - PC management, 163–164
 - Peer, Bill (IHG director of enterprise architecture), 259
 - peer to peer (P2P), 290
 - performance degradation, 149–150
 - performance plan, 69
 - perimeter security, 194
 - Perl (Practical Extraction and Report Language), 290
 - permission, data access, 173
 - personal certification, 44
 - personal security, 196
 - phishing, 203
 - PHP (PHP Hypertext Processor), 290
 - physical security, 196
 - physical system, 22

- plan
 - alignment of operations, 61–62
 - automation, 65–67
 - data center, 217–218
 - data gathering, 61
 - defining, 62–63
 - direction and goal setting, 62
 - financial goal, 63
 - how to create, 61–62
 - management of product and service, 61
 - performance focus, 69
 - as road map for moving forward, 78–79
 - strategy as driver for, 76–77
 - strategy versus, 59–60
 - well-governed organization, 71
 - Poelker, Christopher (*Storage Area Networks For Dummies*, 2nd Edition), 185
 - point solution, 197
 - policy
 - client management, 162
 - IT governance, 112
 - retention, 174
 - portal, 291
 - portfolio management strategy, 49.
 - See also* PPM
 - power user, 165
 - PPM (project portfolio management)
 - asset collection, 215
 - capacity planning, 220
 - change management, 219–220
 - data center planning, 218–221
 - downstream activity, 220–221
 - infrastructure project, 220–221
 - process of, 219
 - systems development, 221
 - technology evaluation, 221–222
 - Practice Extraction and Report Language (Perl), 290
 - predictable change, 93
 - problem management
 - basic description of, 53
 - diagnosing problems, 145, 147–148
 - front-line support staff, 145
 - incident reporting, 147
 - remediation and verification, 148–150
 - as service desk function, 144
 - problem resolution goal, 143
 - process flow, 166
 - process improvement, Sherbrooke school, 265–266
 - professional certification, 44
 - programming in the large, 291
 - project portfolio management. *See* PPM
 - protocol, 291
 - provisioning
 - defined, 291
 - identity management, 200
 - software, 185
 - P2P (peer to peer), 290
- *Q* •
- quality management, 41–42
 - query, 173
- *R* •
- radio frequency identification (RFID), 291
 - RAID (Redundant Array of Inexpensive Disks), 174
 - RDBM (relational database model), 172
 - real-time processing, 291
 - register, 159, 291
 - release and deployment management, 52
 - remediation and verification, problem management, 148–150
 - remote procedure call (RPC), 291
 - remote-access solution, 236–237
 - repair cost, 92
 - reporting
 - central service management, 138
 - continual service improvement, 54
 - data center, 138
 - event management process, 145
 - reporting solution, CIBER service provider, 269
 - repository, 291
 - request for service, 16
 - request fulfillment, 53
 - resource, IT governance, 118
 - resource hijacking, 196
 - resource management, 124
 - resource theft, 195

response time, 152, 291
 retail, 253–256
 retention policy, 174
 RFID (radio frequency identification), 291
 risk analysis, 176
 risk cost, 92–93
 Robak, Nick (IBC senior director of technology services), 243
 root-cause analysis, 160
 RPC (remote procedure call), 291

• S •

SaaS (Software as a Service) service desk model, 143, 292
 SAML standard framework, 292
 SAN (storage area network), 185
 Sarbanes-Oxley Act of 2002, 93, 292
 scalability, 292
 schedule workload, 123
 scripting language, 292
 Secure Sockets Layer (SSL), 293
 security
 access management, 161
 activity log, 201–202
 administration, 201
 attack, 195–196
 authentication, 199–200
 automated, 161
 client management, 161
 data center, 125
 data management, 174–175
 digital deception software, 202
 do's and don'ts, 277
 encryption, 203–204
 as fundamental requirement, 193
 HIPS (host-based intrusion protection system), 202
 identity management, 161, 198–201
 information security management, 50
 IT (information technology), 137
 NIDS (network intrusion-detection system), 202
 NIPS (network-based intrusion protection system), 202
 perimeter, 194
 personal, 196
 physical, 196
 point solutions, 197
 risk management approach to, 204
 strategy, 204–205
 structured approach to, 197–198
 system and log-file monitor, 202
 threat management, 161, 194–195
 virtualization, 187–188
 white-listing, 202
 SEI (Software Engineering Institute) Web site, 37
 self-service model, cloud computing, 189
 semantic, 292
 server, 173
 server blade, 165
 server farm, 292
 service
 component, 17
 defined, 7–8, 16
 execution, 28
 immersive, 17
 industrial sector, 8
 manufactured product as, 8–9
 model example of, 15–16
 outcome, 16
 as purposeful activity, 16
 request for, 16
 subject to commercial constraint, 29
 traditional services economy, 8
 well functioning, 142
 service catalog. *See* catalog
 service component
 defined, 30
 optimization, 31
 as service asset and tool, 31
 service dashboard, 117
 service delivery, 23–24
Service Design (ITIL), 49–51
 service desk
 basic description of, 141
 behind-the-scenes management activity, 12
 change management function, 144
 communication via multiple channels function, 144
 configuration management function, 144

- service desk (*continued*)
 - consolidated, 143
 - data center, 222
 - defined, 292
 - departmental, 143
 - Elbit Systems of America, 228–229
 - event management process, 144–145
 - functions of, 144
 - goals, 143
 - incident management, 144
 - knowledge base function, 144
 - local, 143
 - poorly managed, 142
 - problem management, 144
 - problem resolution goal, 143
 - response time, 152
 - SaaS (Software as a Service) service desk model, 143
 - service resolution goal, 143
 - system support goal, 143
 - time to diagnose metric, 153
 - time to fix metric, 153
 - time to identify problem metric, 153
 - Varian Medical Systems, 237
 - war-room technique, 150
- service level
 - BSM (business service management), 209
 - IHG, 260
 - IT, 210–211
 - KPI, 151–152
 - virtualization foundation issues, 184
- service management, 292
- service management plan. *See* plan
- service management system, 29
- service monitoring, 159–160
- Service Operation* (ITIL), 52–53
- service oriented architecture, 69. *See* SOA
- Service Oriented Architecture For Dummies*, 2nd Edition, 69, 104, 133, 279
- service package, 51
- service provider
 - customer/service provider collaboration, 13
 - requirements, 10
- service provider industry, 267–271
- service strategy. *See* strategy
- Service Strategy* (ITIL), 48–49
- Service Transition* (ITIL), 51–52
- service utility, 51
- service warranty, 51
- service-level agreement. *See* SLA
- service-level management, 50
- servlet, 293
- session-based computing, 164
- Sherbrooke school
 - asset management, 265
 - best practices, 266
 - desktop management, 265
 - incident management, 265
 - organizing to succeed, 264
 - process improvement, 265–266
 - school description, 263–264
 - service management strategy, 264–265
- silo, 293
- silver bullet, 293
- Simple Mail Transfer Protocol (SMTP), 293
- single-sign-on capability, 102, 200
- Sisters of Mercy Health System
 - CMBD, 249
 - company description, 246
 - service management improvement, 246–247
 - service management solution, 247
 - tracking system, 248–249
- site. *See* Web site
- Six Sigma, 293
- skilled participant
 - defined, 16
 - requirements for managing service, 24
 - skill sets, 20–21
- SLA (service-level agreement)
 - BSM (business service management), 211
 - CIBER service provider, 269–271
 - Cisco, 234
 - cloud computing, 192
 - data management, 169
 - defined, 116, 292
 - response time, 152
 - service-level metric, 153
- SMTP (Simple Mail Transfer Protocol), 293
- SOA (service oriented architecture)
 - basic description of, 69
 - black-box component architecture, 70
 - business process management, 70

- configuration management and, 104
- defined, 293
- loosely coupled components, 70
- social engineering attack, 196
- software
 - asset discovery application, 102
 - automation, 65–67
 - dependency mapping, 103
 - digital deception, 202
 - distribution and upgrade, 160
 - password-cracking, 196
 - provisioning, 185
- Software Engineering Institute (SEI) Web site, 37
- software environment management, 137
- software mischief attack, 196
- Software as a Service (SaaS) service desk model, 143, 292
- Software/Applications business model layer, 87, 89
- speed, data access and uploading, 174
- spoofing, 202–203
- SQL (Structured Query Language), 293
- SSL (Secure Sockets Layer), 293
- staff. *See* skilled participant
- Staff/Operatives business model layer, 87, 89
- standardized process model
 - as activity-based workflow, 19
 - ATM example, 19–20
 - defined, 16
 - oversight system, 21
 - service management process, 20
 - service transformation example, 19
- standards. *See also* best practices
 - basic description of, 35–36
 - benefits of organizations providing, 37–38
 - certification service, 44–45
 - client management, 162
 - COBIT resource, 42–43
 - companies reluctant to use, 38–39
 - companies that can benefit from, 39
 - defined, 293
 - importance of, 36
 - ISO, 41–42, 280
 - resources, 37–39
 - service innovation, 38
 - static virtualization, 187
- storage
 - data, 136, 172–174
 - data resource management, 136
 - virtualization, 186
- storage area network (SAN), 185
- Storage Area Networks For Dummies*, 2nd Edition (Poelker and Nikitin), 185
- strategy
 - backup, 175
 - CMDB, 106
 - data center, 139, 223
 - data management, 170
 - demand management, 49
 - as driver of service management plan, 76–77
 - financial management, 49
 - governance implementation, 63–65
 - guideline, 48–49
 - how to create, 60
 - implementation plan, 67
 - IT governance, 112
 - market research survey and focus group, 60
 - measurement, 64–65
 - organization readiness assessment, 67–68
 - plan versus, 59–60
 - portfolio management, 49
 - security, 204–205
- streaming, 164
- structured data, 171
- Structured Query Language (SQL), 293
- subroutine, 293
- supplier management
 - design and development, 51
 - KPI, 127
- support
 - IT governance, 110
 - virtualization, 183
- support cost, 90–91, 167
- survey
 - feedback, 30
 - as service strategy, 60
- system and log-file monitor, 202
- system management, 150
- systems development, PPM, 221

• T •

tape media, backup, 174
 task, 219
 TCP/IP (Transmission Control Protocol/Internet Protocol), 293
 technical support center, Medical Center of Central Georgia, 240–241
 technology
 client management, 156
 service management change, 9
 service planning, 62
 technology evaluation, data center, 221–222
 TechTarget Web site, 282
 testing
 disaster recovery, 177
 transition assessment, 52
 theft
 data, 196
 resource, 195
 thin client, 163, 293
 threat management, 161, 194–195
 throughput, 294
 TLS (Transport Layer Security), 294
 TM Forum, 44
 tool
 digital, 18
 IT (information technology), 19
 mechanical, 18
 service component as, 18, 31
 work environment, 18
 TQM (Total Quality Management), 294
 tracking system, Sisters of Mercy Health System, 248–249
 traditional services economy, 8
 traffic monitoring, 135
 transaction, 294
 transition
 asset and configuration management, 52
 change management, 51–52
 knowledge management, 52
 release and deployment management, 52

 service evaluation, 52
 service validation and testing, 52
 Transmission Control Protocol/Internet Protocol (TCP/IP), 293
 Transport Layer Security (TLS), 294
 troubleshooting solution, CIBER service provider, 268–269

• U •

UDDI (Universal Description, Discovery, and Integration), 294
 unscheduled workload, 123
 unstructured data, 172
 utility computing, 190–191

• V •

validation, 52
 value chain, 67
 Varian Medical Systems
 company description, 235–236
 industry challenge, 236
 remote-access solution, 236–237
 service desk creation, 237
 service management impact measurement, 238
 vendor, 282
 verification, 148–150
 Version 3 (ITIL), 48
 Virgin Entertainment Group
 company description, 253–254
 monitoring and measurement process, 254–256
 virtual desktop, 165
 virtual private network (VPN), 194
 virtualization
 abstraction layer, 184
 automatic restart, 185
 basic description of, 179
 capacity planning issue, 184
 change management issue, 188
 Cisco, 234

- client, 164–165
 - cloud computing, 188–192
 - data center management, 125
 - decoupling, 180
 - defined, 294
 - dynamic, 187
 - Elbit Systems of America, 231
 - emulation, 180
 - encapsulation, 180
 - file system, 182
 - foundational issues, 183–184
 - hardware abstraction, 182–183
 - hardware provisioning, 135, 186–187
 - history of, 181
 - hypervisor in, 182, 188
 - isolation, 180
 - IT process workflow issue, 184
 - license management issue, 184
 - migration of running virtual machine, 185
 - network management issue, 184, 188
 - partitioning, 180
 - perimeter security issue, 188
 - provisioning software, 185
 - security issues, 187–188
 - service-level issue, 184
 - static, 187
 - storage, 186
 - support, 183
 - symmetric multiprocessing, 183
 - virtual memory, 180
 - workload administration issue, 184
 - virus, 164, 196
 - vision, 74
 - VoIP (Voice over IP), 136
 - VPN (virtual private network), 194
- *W* •
- war-room technique, 150
 - Web content-management system, 173
 - Web service, 294
 - Web Services Choreography Interface (WSCI), 294
 - Web Services Definition Language (WSDL), 294
 - Web Services for Remote Portlets (WSRP), 295
 - Web site
 - CMMI, 37, 281
 - COBIT, 37, 281
 - eSCM, 37, 281
 - eTOM, 37, 281–282
 - Hurwitz & Associates, 4, 279
 - ISACA, 280–281
 - ISO, 37, 280
 - ITIL, 37, 280
 - ITIL Central, 280
 - ITSqc, 37
 - SEI, 37
 - TechTarget, 282
 - white-listing, 196, 202
 - workflow, 294
 - workload
 - application self-service, 132–133
 - automation, 134
 - continuous, 123
 - IT process automation, 133
 - scheduled, 123
 - unscheduled, 123
 - virtualization foundation issues, 184
 - World Wide Web (WWW), 294
 - World Wide Web Consortium (W3C), 294
 - Worthington, Sean (Cisco IT vice president), 232
 - WSCI (Web Services Choreography Interface), 294
 - WSDL (Web Services Definition Language), 294
 - WS-Policy, 294
 - WSRP (Web Services for Remote Portlets), 295
 - W3C (World Wide Web Consortium), 294
 - WWW (World Wide Web), 294

• X •

XML (Extensible Markup Language), 295
XML Schema, 295
XSD (XML Schema Definition), 295
XSLT (Extensible Stylesheet Language
Transformation), 295

• Z •

Zucker, Michael (Sisters of Mercy Health
System director of process and
quality), 248