Index

A

Access-based authorization, 221–222
Accountable Care Organizations (ACOs), 51
Accounting
  energy reserves, 140
  hydrocarbon, 140–141
"Active subscriber" definition, 300
Actuarial decisions, data quality for, 43–44
Affinity relationships, 189
Aftermarket data, 70
Agent data, insurance, 42–43
AML as sponsor case study, 28
Analytical metadata
  defined, 313
  information governance around, 314–315
  managing, 313–315
  See also Metadata
Application consolidation
  government cross-agency, 119–120
  information technology operations, 204–205
Application retirement, 119–120
Approval, workflow, 94
Asset data
  defense, 131
  governance case study, 79
  information governance case study, 168
  oil and gas, 141
  parts-standardization example, 79
  RACI matrix, 80
  standardization, 78–80
  travel and transportation, 112–113
Asset hierarchies, utilities, 169
Asset management, 165
Asset Management in the Utilities Industry, 163
Authorization, 221–222
Authorized signatories, 28–29
Automated data validation, workflow, 92–93

B

Baggage handling, data reliability, 109
Bangladesh case study, 197
Banking and financial markets
  best practices, 12
  business environment, 11
  complexity costs, 11
  contact information, 16
  contacts, 15
  cost-to-income ratio lowering, 26–27
  credit risk, 15–18
  critical data elements identification, 292
  customer information management (CIM) department, 13–15
  data quality improvement, 12–15
  data reliability improvement, 15–18
  demographics, 14
  emerging markets growth, 11
  hierarchy management, 16
  industry classification, 15–16
  information governance organization establishment, 29–31
  information identity, 13
  needed transformation, 11
  party relationships, 14–15
  product hierarchy consistency, 25–26
  RACI matrix, 12–13
  regulation compliance, 27–29
  risk management information trustworthiness, 19–25
  stewardship, 13
  success requirements, 11
  summary, 31
  total customer review provision, 18–19
Basel II, 16, 20-22, 24, 45
Basel III, 20, 24
Best practices
  banking and financial markets, 11–31
  business case, 333–342

Business Intelligence Competency Centers (BICCs), 288
business metadata, 298
cross-agency, 117, 118–123
data discovery, 298
defense, 118, 129–132
education, 118, 132–134
finance, 193–199
government, 117–134
health and human services (HHS), 117–118, 123–125
healthcare, 51–66
human resources, 225–228
information security and privacy, 209–223
information technology operations, 201–208
insurance, 33–49
legal and compliance, 229–243
manufacturing, 67–82
maturity assessment, 319–331
metadata, 297
metrics, 291–296
NPI, 92
oil and gas, 135–145
operations, 245–252
product management, 261–268
retail, 83–103
roles and responsibilities, 271–290
sales and marketing, 179–192
security, 118, 126–129
supply chain, 253–259
technical metadata, 298
telecommunications, 147–161
travel and transportation, 105–115
utilities, 163–175
Billing addresses, 150
Bill of materials (BOM)
case study, 72
defined, 71
responsibilities, 75
Business benefits
detailed, identifying, 335
qualitative, 335
quantifiable, 335
top-level, aligning, 336
top-level, identifying, 334
See also specific business benefits
Business case
aligning to strategic corporate initiatives, 334
best practices, 333
customer master data case study, 338
detailed business benefits identification, 335
importance of, 333
improvement impact on KPIs, 336–337
information lifecycle governance case study, 340–341
key performance indicators (KPIs), 335–336
project prioritization, 337–341
security and privacy case study, 339
summary, 342
top-level business benefits identification, 334
Business customers
information governance over, 108
single view of, 107–108
Business glossaries
deploying, 299
IBM InfoSphere, 303, 304
jumpstarting, 300–301
maintaining, 302
making active, 304
scoping, 300
Business glossary manager, 315
Business insight, 6
Business intelligence (BI), 344
Business Intelligence Competency Centers (BICCs)
advice and consultancy, 287

best practices and standards, 288
business strategy alignment, 288
centralization of infrastructure, 289
communication and evangelism, 288
community services, 288
defined, 287
education, 288
enterprise technical architecture, 288
establishing, 287–290
functions, 287–289
higher levels of self-service, 289–290
information governance alignment, 288
IT governance alignment, 288
organizational structures, 290
shared service centers, 289
standardization, 289
successful business case drivers, 289–290
support, 288
Business metadata
best practices, 298
business glossary, jumpstarting, 300–301
business glossary, maintaining, 302
business glossary, making it active, 304
business glossary, scoping, 300
business term linkage with technical artifacts, 305
history of definitions for terms, 302–303
lifecycle management, 301
rights management, 299
See also Metadata
Business rules improvement case study, 257
Business terms, linking with technical artifacts, 305
Business-to-business information, 87

C

Call centers, 251
Capability Maturity Model (CMM)
defined, 319
illustrated, 320
levels, 320–321
See also Maturity assessment
Card verification value (CVV), 215
Case studies
"active subscriber" definition, 300
AML as sponsor, 28
asset data governance, 79
Bangladesh, 197
BOM governance, 72
business case for governance of customer master data, 338
business case for information lifecycle governance and security and privacy, 340–341
business case for security and privacy, 339
business rules improvement, 257
Christopher Columbus funding request, 1–2
combat-ready soldiers, 129
counterparty exposure, 19
credit risk management, 17–18
custodians identification, 234
customers-in-common data ownership, 71
customers with multiple roles, 88
data growth management, 204
data protection at human services department, 119
data stewardship at software company, 82
data stewardship over chart of accounts, 195
demand planning, 255
DLP, 221
drug movement, 77
dynamic pricing, 268
EMPI establishment, 57–58
employee location data, 227
employees, 226
European Union Cosmetics Directive, 267
flexible pricing of time deposits, 25–26
FTEs by province, 120
hierarchy information governance, 18–19

householding to reduce marketing spend, 87
Humpty Dumpty problem, 26–27
improved retention rates, 41
information governance around agent data, 43
information governance around asset data, 168
information governance around customer data privacy, 251
information governance around date of birth, 36
information governance around direct-marketing consents, 39
information governance around equipment run times, 247
information governance around fragmented customer data, 149
information governance around gender, 37
information governance around hazardous materials, 142
information governance around high-value guests, 106–107
information governance around marital status, 38
information governance around net worth, 37
information governance around "next best offer," 185
information governance around policy expiration date, 45
information governance around property values, 248
information governance around single view of customer, 191–192
information governance around small set of business terms, 197
information governance around telecommunications network data, 155–156
information governance around value of loan collateral, 21–22
information governance around VMI, 258
information governance charter, 277–278
information governance for cruise ship hierarchies, 111
information governance maturity assessment, 324–325
information governance over business customers, 108
information governance over date of death and mailing address, 124
information governance to support citizen-centricity, 125
information governance versus information management, 5
inventory based on consistent barcoding practices, 258
job classifications, 226
linking jumbo life insurance policies, 35
managing test data, 206
market segmentation at packaged food manufacturer, 180
materials data improvement, 256
metadata value for telecommunications network operations, 156
multiple definitions of "child," 121
network performance for customer churn, 152
nutritional information governance, 73
offshoring human resource applications, 227
one-time data stewardship, 252
operational risk, 24
planned lead time accuracy, 256
privacy of customer churn data, 159
privacy regulations, 212
product development, 263–264
protected health information, 212
provider information governance, 56

rationalization of maintenance and logistics systems, 131
records management, 241
records retention management, 240
reference data governance, 357
revenue assurance around number of calls, 158
scorecard, 294
ship-to-addresses, 69
skunkworks information governance, 276
store operations versus marketing, 85
"underwear bomber," 127
vendor information governance around payment terms, 198
vendor SLAs, 99
Virtual Lifetime Electronic Record (VLER), 130
volatility scores, 23
Categorization, workflow, 94
CGOC process maturity model
collection and review, 237–238
defined, 235
legal holds, 236–237
retention and information management, 238–239
Chart of accounts consistency, 194–195
Chief data officer
information trustworthiness, 281–283
organizational chart for, 281
reporting functions, 282
Chief data steward, 286
Chief information security officer (CISO), 209
Christopher Columbus funding request case study, 1–2
CMM. *See* Capability Maturity Model
Combat-ready soldiers case study, 129
Commodities, in market risk, 23
Consumer insight, 67
Contact information
banking and financial markets, 15–16
healthcare, 53
healthcare provider, 55
insurance, 36
manufacturing, 68–69
retail, 86–87
sales and marketing, 185
supply chains, 258–259
Controller support, 194–195
Corporate hierarchies, telecommunications, 150
Costing
manufacturing, 75
retail, 98
Cost reduction
government cross-agency, 119–120
telecommunications, 157
Cost-to-income ratio
banking and financial markets, 26–27
case study, 26–27
defined, 26
Counterparty exposure case study, 19
Country-specific localization, 265
Credit risk
defined, 20
department, 21
in hierarchy management, 16
management case study, 17–18
scores, 20
Crew scheduling, 250
Cross-agency best practices
application consolidation, retirement, and data archiving, 119–120
armed forces, 121
child welfare services agency, 121
cost reduction, 119–120
data definitions consistency, 120–121
defined, 117
department of defense, 121
information governance organization establishment, 121–123
provincial health system, 121

sensitive information safeguards, 118–119
social services agency, 121
veterans agency, 122
See also Government
Current Good Manufacturing Practice (CGMP), 78
Custodians identification case study, 234
Customer churn data privacy case study, 159
Customer data
customer integration department, 184
improved retention rates and, 41
integration, 183
privacy case study, 251
reliability in corporate banking, 15–18
sales and marketing, 179–180
Customer duplicates, managing, 186–187
Customer hierarchies, 160
Customer information files (CIFs)
information technology operations, 204
insurance, 35, 39
Customer information management (CIM) department, 13–15
Customers
data reliability, 15–18
experience, 149–152
integration, 180–184
manufacturing, 67
preferences, 150
privacy, protecting, 186
profitability, 38
Customers-in-common data ownership case study, 71
Customers with multiple roles case study, 88
Cyber-attack prevention, 218–219

D

Data architecture, 4
Database monitoring
access policies, 218
banks, 217
change tracking, 216
credit card companies, 217
cyber-attack prevention, 218–219
exception policies, 218
extrusion policies, 218
health plans, 217
industry examples, 217
periodic log reviews versus, 216–217
pre-configured policy, 219
privileged users, 216
retailers, 217
telecommunications carriers, 217
unauthorized access, 215–218
See also Information security and privacy
Data consolidation, 204–205
Data custodian
defined, 286
job description, 286–287
Data definition consistency
government cross-agency, 120–121
healthcare, 60–61
Data discovery
best practices, 298
for entity-relationship (ER) diagrams, 305
inconsistencies and exceptions, 308
lineage, 306–308
process, 305
by reverse-engineering primary-foreign key relationships, 305–306
sensitive data location identification, 306
software tools, 346–347
tools, age of, 305
See also Metadata
Data governance
business insight, 6
coalescence around, 7
owners of, 6
term limitation, 6
types of content, 6
See also Information governance
Data growth management case study, 204

Data inconsistencies and exceptions, 308
Data integration, 4
Data lineage
  administrator role, 316
  discovery, 306–308
  leveraging metadata for, 309–310
Data Loss Prevention (DLP) strategies
  case study, 221
  defined, 351
  implementing as last line of defense, 210, 221
Data masking, 220
Data modeling
  defined, 4
  software tools, 346
Data profiling, 6
Data protection at human services department case study, 119
Data quality improvement
  for actuarial decisions, 43–44
  banking and financial markets, 12–15
  defense, 130
  employee data, travel and transportation, 113–114
  finance, 197–198
  health, safety, and environmental (oil and gas), 142–143
  health and human services (HHS), 124–125
  human resources, 227
  insurance, 34–42
  insurance agent, 42–43
  location data, travel and transportation, 113–114
  oil and gas, 138–139, 142–143
  operations, 250
  product management, 266–267
  supply chains, 259
  telecommunications, 154–158
  underground data (oil and gas), 138–139
Data quality software tools, 347–348
Data reliability improvement
  banking and financial markets, 19–25
  insurance policy administration, 44–45
  travel and transportation, 109–110
Data standardization, 139–140
Data stewards
  appointing, 295–296
  assigning, 302
  as de facto operator, 280
  roles and responsibilities, 285–286
Data stewardship
  aligned by IT system, 279
  aligned by master data entity, 279
  aligned by organization, 279
  business benefits, 82
  case study, 82
  chart of accounts case study, 195
  combination configuration, 280
  community, 81
  configuration by IT system, organization, master data entity, or a combination, 278–280
  executive sponsor role, 280
  as first seeds, 278
  identifying, 302
  information governance charter, 277–278
  maturity model, 278
  oil and gas, 144
  one-time, case study, 252
  role importance, 280
Data trustworthiness
  chief data officer management of, 281–283
  for claims adjudication, 44
  finance, 196–197
  risk management, 19–25
  travel and transportation, 110
  utilities, 171–174
Data warehousing, 6
Date of birth, 35–36
Decentralized information governance, 274

Defense best practices
active-duty personnel view consistency, 129
data quality improvement, 130
defined, 118
governance and naming convention consistency, 131
parts inventory management, 132
veterans' quality of life, 130
See also Government
Defense in depth, 210
Definition consistency, 60–61
Delivery operations, 110
Demand planning, 255
Demand signal repositories (DSRs), 75–76
Demographic information, 86
Demographics
banking and financial markets, 14
telecommunications, 150
Detecting Insider Threat and Collusion with IBM InfoSphere Entity Analytic Solutions, 114
Document retention, 28
Downstream operations, oil and gas, 141
Drug movement case study, 77
Drug traceability, 76–77
Dynamic pricing case study, 268

E

Education
alumni contact information benefits, 134
best practices, 118
Business Intelligence Competency Centers (BICCs), 288
information governance organization establishment, 133–134
student view establishment, 132–133
See also Government
Effective dates reliability, 228
Electronic Medical Records (EMRs), 60–61
Employee location data case study, 227
Employees case study, 226
Encryption, sensitive data, 214–215
Energy reserves accounting, 140
Enrichment, workflow, 94
Enterprise architectures
information security and privacy, 213
software tools, 346
Enterprise asset management, 346
Enterprise assets, 3, 6
Enterprise master patient index (EMPI)
case study, 57–58
in data quality improvement, 57
defined, 57
HHS establishment, 125
illustrated example, 58
implementation, 57
Enterprise Resource Planning (ERP), 345–346
Environmental Protection Agency (EPA), 143
Equipment data, 139–140
European Union Cosmetics Directive, 267
Evolving topics, 189
Executive data stewardship sponsor, 285
Executive sponsorship
importance of, 333
role in data stewardship, 280
eXtensible Business Reporting Language (XBRL), 196

F

Finance
best practices, 194
budgeting and planning, 196–197
CFO, 193–194
chart of accounts consistency, 194–195
controller support, 194–195
global accounting standards, 196
information accuracy enhancement, 195–196
information integration, 193

information quality improvement, 197–198
information trustworthiness, improving, 196–197
organizational chart, 194
purchasing support, 198–199
regulatory compliance, 195–196
roles, 193–194
summary, 199
vendor information quality, 198–199
See also Banking and financial markets
Firmographic information
manufacturing, 68
telecommunications, 150
Fleet management, 109
Flexible pricing of time deposits case study, 25–26
Fraud, monitoring applications for, 219
FTEs by province case study, 120
Fuel operations, 109

G

Gender, 37
Geography, in market risk, 22–23
Geospatial information, 169
Global Distribution System (GDS) providers, 110
Global manufacturer PIM solution case study, 266
Global Trade Item Number (GTIN), 96–97
Government
best practices, 117–118
critical data elements identification, 293
cross-agency best practices, 117, 118–123
defense best practices, 118, 129–132
education best practices, 118, 132–134
health and human services (HHS) best practices, 117–118, 123–125
security best practices, 118, 126–129
summary, 134
Group information, healthcare, 53

H

Hardware security modules (HSMs), 215
Hazardous materials
chemical manufacturer case study, 142
manufacturing, 75
retail, 97
Health and human services (HHS) best practices
data quality improvement, 124–125
defined, 117–118
enterprise master patient index (EMPI), 125
waste, fraud, and abuse prevention, 123–124
See also Government
Healthcare
asset governing, 62–63
best practices, 52
business models, 51–52
chief medical information officer (CMIO), 65
contact information, 53
critical data elements identification, 293
database monitoring, 217
data reliability improvement, 54–56
definition and data consistency, 60–61
enterprise master patient index (EMPI), 57–58
group information, 53
health and wellness information, 53–54
HIE support, 61
ICD-9 to ICD-10 transition, 59–60
identity information, 53
information governance organization establishment, 63–64
information governance organization for alignment, 65
payers, 51
producers, 63
prospect information, 52–53

summary, 66
360-degree view of producer, 63
unauthorized access guard, 59
Healthcare providers
cost and quality information, 55
credentialing, 55
data aspects, 54–56
defined, 51
enterprise asset management, 62–63
governing asset use within, 62–63
information governance case study, 56
ownership information, 56
Health Information Exchange (HIE)
advantages, 61–62
defined, 51
HHS support, 125
information governance, 62
support, 61–62
Health Insurance Portability and Accountability Act (HIPAA), 59, 64
Health plan members
defined, 51
implementation business benefits, 54
HHS. *See* Health and human services best practices
Hierarchies
asset, 113
common definition in travel and transportation, 110–111
corporate, telecommunications, 150
customer, telecommunications, 160
product, telecommunications, 160
product management, 265–266
supply chains, 259
Hierarchy information governance case study, 18–19
Hierarchy management
banking and financial markets, 16
credit risk in, 16
insurance, 44
product, 71
products, 265–266
History of definitions for terms, 302–303
Hot buttons, 7
Householding information, 87
Householding to reduce marketing spend case study, 87
Household structure, 151
Human resources
best practices, 225
effective dates reliability, 228
employee information safeguards, 227
employee location data quality, 227
information governance around employee type, 226
job classification code updating, 226
social media analytics, 228
as steward for employee data, 225
summary, 228
Humpty Dumpty problem case study, 26–27
Hydrocarbon accounting, 140–141

I

IBM Atlas, 349
IBM Atlas eDiscovery Policy Federation Framework, 350
IBM Classification Module, 350
IBM Cognos Business Viewpoint, 313–314, 348
IBM Content Analytics, 344
IBM Content Collector, 349
IBM Database Encryption Expert, 351
IBM Datacap, 349
IBM eDiscovery Management Solution, 349
IBM FileNet Capture, 349, 350
IBM Information Governance and Disposal for IT, 350
IBM Information Governance Council Maturity Model
Audit Information Logging and Reporting,, 322, 331
Business Outcomes, 321, 325
categories, 321–322

Classification and Metadata, 322, 330
Data Architecture, 321, 330
Data Quality Management, 321, 328
Data Risk Management, 321, 326–327
defined, 321
illustrated, 322
Information Lifecycle Management, 321, 328–329
Information Security and Privacy, 321, 329
inter-related groups, 322
Organizational Structures and Awareness, 321, 325
Policy, 321, 327–328
sample use of, 323
in scoping maturity assessment, 324
Stewardship, 321, 326
system of record (SOR), 323
See also Maturity assessment
IBM InfoSphere
Business Glossary, 303, 304, 348
Data Architect, 305, 346
Discovery, 306, 308, 346–347
Discovery Transformation Analyzer, 307
Gardium Data Redaction, 351
Information Analyzer, 346–347
Master Data Management for Product Information Management, 351
Master Data Management Server, 351
Metadata Workbench, 310, 311, 348
Optim Data Growth Solution, 349
Optim Data Masking Solution, 351
Optim Test Data Management Solution, 350
QualityStage, 348
IBM Initiate Master Data Service, 351
IBM Maximo Asset Management, 346
IBM Rational System Architect, 346
IBM Records and Retention Management Solution, 349
IBM Retention Policy and Schedule Management, 350, 351
IBM Retention Policy Federation Framework, 350
IBM Smart Archive, 349
IBM SPSS, 344
IBM Tivoli Access Manager, 351
IBM Tivoli Federated Identity Manager, 351
IBM Tivoli Identity, 351
IBM Tivoli Security Information and Event Manager (TSIEM), 351
IBM Unica, 346
IBM/World Wide Retail Exchange (WWRE), 89
Identity-based authorization, 221–222
Identity information
healthcare, 53
healthcare provider, 54
insurance, 34–35
in market risk, 22
retail, 85
telecommunications, 149
Impact analysis, 310–311
Industries
classification, 15–16
in market risk, 23
See also specific industries
Information
architecture consistency, 207
defined, 4
disciplines, 4
as enterprise asset, 3
identity, 13
lack of business ownership, 4
Information accuracy
finance, 195–196
product data, 89–98
Information-centric applications
analytics, 344
business intelligence and performance management, 344
enterprise asset management, 346
enterprise resource planning, 345–346

marketing automation, 346
overview, 343
summary, 357
Information governance
agent data case study, 43
business customers case study, 108
charter formalization, 276–278
citizen-centricity support case study, 125
cruise ship hierarchies case study, 111
customer data privacy, 251
date of birth case study, 36
date of death and mailing address case study, 124
defined, 2
direct-marketing consents case study, 39
equipment run times, 247
fragmented customer data case study, 149
gender case study, 37
by geography, 273
hazardous materials case study, 142
healthcare provider case study, 56
high-value guests case study, 106–107
hot buttons, 7
information management versus, 3–4, 5
introduction to, 1–7
large telecommunications operator, 275
marital status case study, 38
maturity assessment. *see* maturity assessment
media conglomerate, 274
multi-tier structure, 272–276
net worth case study, 37
"next best offer," 185
policy expiration date case study, 45
poor, 1
prerequisites, 2–3
property values, 248
regulatory drivers, 241–242
single view of customer, 191–192
small set of business terms, 197
telecommunications network data case study, 155–156
value of loan collateral case study, 21–22
vendor, 198–199
vendor payment terms, 198
VMI, 258
Information governance charter
aspects, 276
case study, 277–278
defined, 276
formalizing, 276–278
Information governance council, 284
Information governance officer, 283–284
Information governance organization(s)
airline, 115
banking and financial markets, 29–31
decentralized, 274
European operations of oil and gas company, 145
European telecommunications carrier, 160
financial service subsidiary, 102
government cross-agency, 121
healthcare, 63–64
insurance, 48
at major retailer, 103
manufacturing, 80–82
mid-sized bank, 29
at mid-size non-teaching health system, 65
multi-line insurer, 48
multinational bank, 30
multiple, by business unit, 273–274
multiple, by function, 275
multiple, by geography, 273
at non-for-profit university, 133
oil and gas, 143–145
retail, 101–103
single, at corporate level, 272
single, global ERP instance manufacturer, 81
smart meter roll-out, 174
tax and revenue department, 123

telecommunications, 159–160
travel and transportation, 114–115
U.S. health plan, 64
utilities, 174
Information governance software tools
data discovery and profiling, 346–347
data modeling, 346
data quality, 347–348
enterprise architecture, 346
information lifecycle management, 348–350
master data management (MDM), 352–355
metadata, 348
overview, 344
reference data management, 356–357
security and privacy, 350–351
summary, 357
Information governance working group, 285
Information leveraging
in case study, 6
defined, 3
sales and marketing, 184–186
Information lifecycle governance
beneficiaries of, 232
clear objectives, 231–233
defined, 230
departmental silos plaguing, 233
emergence as discipline, 230
as enterprise initiative, 232–233
executive sponsorship drivers, 232
importance of, 229–230
maturity assessment, 235–239
Information lifecycle management
content collection and classification, 349–350
defined, 4, 348
ERP, 345
integrated disposition enablement, 350
inventory of obligations, 348
legal, retention, and privacy policy syndication, 350
legal holds and evidence collection, 349
platform components, 348–350
records and retention management, 349
software tools, 348–350
test data management, 350
value-based archiving, 349
Information management
information governance versus, 3–4
information governance versus case study, 5
telecommunications, 157
Information optimization
in case study, 5
defined, 2–3
Information security
in case study, 6
defined, 3
Information security and privacy
authentication, authorization and audit facilities, 221–222
best practices, 210–211
business and regulatory drivers, 211–212
CISO, 209
data-at-rest/data-in-motion encryption, 214–215
database monitoring (attack prevention), 218–219
database monitoring (unauthorized access), 215–218
Data Loss Prevention (DLP) strategies, 210
data masking, 220
defense in depth, 210
DLP strategy, 221
fraud monitoring, 219
information-centric, 210
information governance participation, 213
intrusion detection, 223
security information and event management (SIEM), 222–223
sensitive data discovery, 214

sensitive information safeguards, 219, 220
stakeholders, 213
summary, 223
Information Technology Infrastructure Library (ITIL), 222
Information technology operations
application consolidation, 204–205
archiving strategy, 202–203
best practices, 201–202
CIOs, 201
data consolidation, 204–205
information architecture consistency, 207
legacy applications retirement, 202
storage cost reduction, 202–203
summary, 208
test data sets support, 205–207
Institute of Asset Management, 140
Insurance
best practices, 34
capital adequacy regulations compliance, 45–47
contact information, 36
critical data elements identification, 292
customer information management, 33
customer profitability, 38
data quality enhancement, 42–43
data quality for actuarial decisions, 43–44
data quality improvement, 34–42
data reliability improvement, 44–45
data trustworthiness, 44
date of birth, 35–36
gender, 37
growth challenges, 33
identity information, 34–35
information governance organization establishment, 48–49
IT and business interests alignment, 48
net worth, 37
policy administration, 44–45
privacy preferences, 38–39
products, 34
rules of visibility, 39
summary, 49
Internal audit management, 243
International Classification of Diseases (ICD)
defined, 59
ICD-9 to ICD-10 transition, 59–60
International Financial Reporting Standards (IFRS), 196
Intrusion detection system (IDS), 223
Inventory based on consistent barcoding practices case study, 258
Item retrieval, NPI best practice, 92
Item review, workflow, 93

J

Job classifications case study, 226

K

Key performance indicators (KPIs)
actionable, 293
aligning to top-level business benefits, 336
auditable, 293
best practices, 291
defined, 291
digestible, 293
maturity impact improvement on, 336–337
in quantifying business value, 335–336
timely, 293
Know Your Customer (KYC), 27–28

L

Lead management, 190
Legacy applications, retiring, 202
Legal and compliance
best practices, 231
clear objectives for information lifecycle governance, 231–233
country-specific regulations, 241–242
industry-specific regulations, 241–242
internal audit management, 243

legal holds as enterprise, 234
maturity assessment, 235–239
records management strategy, 239–241
sensitive information safeguards, 243
summary, 243
traceability, 243
Leverage job descriptions
chief data steward, 286
data custodian, 286–287
data steward, 285–286
executive data stewardship sponsor, 285
information governance council, 284
information governance officer, 283–284
information governance working group, 285
See also Roles and responsibilities
Lifecycle management, 301
Linking jumbo life insurance policies, 35
Liquidity risk
assessment, 25
data quality in accessing, 24–25
defined, 24
management, 24
proxy for, 25
Location data
employee, 227
travel and transportation, 111–112
Low voltage concentrator (LVC), 173

M

Maintenance change requests, 249–250
Maintenance data, 169
Maintenance steering committee, 249
Manufacturing
aftermarket data, 70
asset nomenclature standardization, 78–80
attribute responsibilities, 74–75
attributes, 72
best practices, 68
commonalities, 67–68
consumer insight, 67
contact information, 68–69
contractual terms, 70
critical data elements identification, 292
customer attributes, 68–70
customer-centric initiatives, 68–71
customer duplicates and hierarchies, 69
customers, 67
demand signal repositories, 75–76
firmographic information, 68
hazardous materials, 75
industries, 67
information governance organization establishment, 80–82
plant operations, 75
pricing, 70, 75
product development, 67
product management, 74–75
product management support, 71–76
regulation compliance, 68, 76–78
service after sales, 68
summary, 82
supply chain, 68, 75
territory alignment, 70
trade promotions, 67
vendors, 75
warranty data, 70
Marketing automation, 346
Marketing campaigns
customer data improvement, 186
effectiveness, 184–186
leads, real-time monitoring, 186
in leveraging information, 184
Marketing expenditures, 84–88
Market risk
defined, 22
key attributes, 22–23
Market segmentation
packaged foods manufacturer case study, 180
sales and marketing, 179–180

Master data management (MDM)
activities, 353–355
architectural approaches, 352–353
data stewardship, 279
defined, 4
master data, 352
master data domain, 352
software tools, 352–355
virtual, 125
Materials data improvement case study, 256
Maturity assessment
best practices, 319
Capability Maturity Model (CMM), 319–321
case study, 324–325
CGOC process maturity model, 235, 236–239
conducting, 319
defined, 319
IBM Information Governance Council Maturity Model, 321–323
information lifecycle governance processes, 235–239
levels, 235
sample, 323
scoping to manageable size, 324–325
summary, 331
Maturity assessment questionnaire
Audit Information Logging and Reporting, 331
Business Outcomes, 325
Classification and Metadata, 330
Data Architecture, 330
Data Quality Management, 328
Data Risk Management, 326–327
Information Lifecycle Management, 328–329
Information Security and Privacy, 329
Organizational Structures and Awareness, 325
Policy, 327–328
Stewardship, 326
Medical Loss Ratio (MLR), 60, 61
Metadata
administrator role, 315
analytical, 313–315
best practices, 297–298
business, 298–305
business case for supporting, 316–317
business glossary manager role, 315
data discovery, 298, 305–308
data lineage administrator role, 316
defined, 297
enterprise sources and processes, 297
initiative benefits, 317
management, 345–346
operational, 312
roles for managing, 315–316
software tools, 348
summary, 317
technical, 298, 308–311
telecommunications network operations case study, 156
Metrics
best practices, 291–292
critical data elements identification, 292–293
data stewards for improving, 295–296
improving over time, 295–296
information governance charter, 277
key performance indicators (KPIs), 291
scorecard, refreshing, 296
scorecard monitoring, 294–295
summary, 296
Micro-merchandising, 265
Microsoft SharePoint, 350
Multiple definitions of “child” case study, 121
Multi-tier structure
decentralized by business unit, 274
establishing, 272–276
multiple organizations by business unit, 273–274

multiple organizations by function, 275
multiple organizations by geography, 273
single organization, corporate level, 272
skunkworks organization, 275–276

N

National Information Exchange Model (NIEM)
components reuse within, 129
defined, 128
Nationwide Health Information Network (NHIN), 125
Network performance
customer churn case study, 152
telecommunications, 151
Net worth, 37
New production introduction (NPI)
best practices, 92
defined, 89
inefficiencies, 89–90
item retrieval, 92
PIM benefits, 91
publication, 95–98
solutions, that cause problems, 90–91
workflow, 92–94
Nuclear document security, 171
Nuclear industry
document security, 171
quality assurance documentation, 171
Nutritional information, manufacturing, 72–73

O

Objectives alignment
in case study, 6
defined, 3
Offshoring human resource applications case study, 227
Oil and gas
accounting of energy reserves, 140
as asset-intensive industry, 137, 139
best practices, 138
downstream operations, 141
energy demand, 135
environmental footprint, reducing, 136
equipment data, 139
equipment data standardization, 139–140
exploration improvement, 135–136
health, safety, and environmental data quality improvement, 142–143
hydrocarbon accounting, 140–141
information governance organization establishment, 143–145
information integration, 136
product, customer, and asset data, 141
recovery enhancement, 136
regulatory compliance, 143
summary, 145
support functions, 137
underground data quality, 138–139
value chain, 137
vendor data, 141
One-time data stewardship case study, 252
Operational efficiencies, 251–252
Operational metadata, 312
Operational risk, 23–24
Operations
asset availability, 250
asset data quality improvement, 246–250
best practices, 245–246
call center, 251
crew scheduling, 250
customer service environments, 250
data quality improvement, 250
defined, 245
electronic catalog, 248
information governance use, 247
mailings and fulfillment, 252
maintenance, repair and operations (MRO) inventory, 246
maintenance change requests, 249–250

maintenance steering committee, 249
nonmenclature standardization, 246–250
operational efficiencies, 251–252
parts inventory management, 248
route planning, 252
scope of functions, 245
summary, 252
Order management, 190
Organizational buy-in, 7

P

Packaging, retail, 98
Parts inventory management, 248
Party relationships, 14–15
Payment Card Industry (PCI) regulations, 100
Payment Card Industry Data Security Standard (PCI DSS), 212
Performance management
telecommunications, 154–157
tools, 344
Planned lead time accuracy, 256
Policy formulation
in case study, 5
defined, 2
Power outage reporting, 172–174
Practice information, healthcare provider, 55
Predictive analytics tools, 344
Pricing
dynamic, case study, 268
manufacturing, 75
negotiations, supply chains, 258–259
real-time, 267
retail, 98
Prioritization, project, 337–341
Privacy preferences, 38–39
Privacy regulations case study, 212
Private keys, 214
Product catalogs
functional areas, 152–153
sanitized business benefits of, 154
telecommunications operators, 153
Product data
accuracy, 89–98
inefficiencies, 89–90
See also Retail
Product hierarchies
banking and financial markets, 25–26
retail, 96
telecommunications, 160
Product information management (PIM)
alerts, 262
country-specific localization with, 265
defined, 261
global manufacturer case study, 266
micro-merchandising with, 265
retail business benefits, 264
retail implementation, 91
time-to-market benefits, 264
Product management
best practices, 262
bill of materials (BOM), 71–72
concepts and development, 74–75
country-specific localization, 265
defined, 261
hierarchies, 265–266
lifecycle, 74
manufacturing attributes, 72
micro-merchandising, 265
nutritional information, 72–73
out-of-stocks reduction, 264
PIM and, 261
product data quality improvement, 266–267
product data standardization, 265–266
product hierarchies, 71, 75
product introductions, 262–264
productivity increase, 264
reporting and analytics, 265–266
sales enhancement, 264
sensitive information safeguards, 266
summary, 268

support, 71–76
workflows, 267–268
Products
business rules approval, 267–268
descriptions, 97
development, 67
development case study, 263–264
images, 98
new introduction of, 262–263
relationship, 98
standardization, 152–154
status, 98
types, 97
Promotions, 98
Prospect information, healthcare, 52–53
Protected health information case study, 212
Publication
costing and pricing, 98
Global Trade Item Number (GTIN), 96–97
hazardous materials, 97
NPI process, 95–98
packaging, 98
product description, 97
product hierarchies, 96
product images, 98
product relationships, 98
product status, 98
product type, 97
promotions, 98
RACI matrix, 95
vendor certifications, 97
vendor name and identifier, 97
weight and dimensions, 97
See also New production introduction (NPI)
Publicly Available Specification (PAS) 55, 140
Public Utilities Commission (PUC), 172
Purchase history information, 88

R

RACI (responsible, accountable, consulted, informed) matrix
asset data, 80
manufacturing, 73–74
retail, 95–96
retail bank customer data, 12–13
Rationalization of maintenance and logistics systems case study, 131
Recharge data, telecommunications, 152
Records management
departmental silos plaguing, 230–240
importance of, 239
insurance company case study, 241
life sciences case study, 240
strategy, 239–241
Reference data management
case study, 357
data examples, 356
defined, 4
software tools, 356–357
Regulation compliance
authorized signatories, 28–29
banking and financial markets, 27–29
document retention, 28
global financial crisis, 28
insurance, 45–47
Know Your Customer (KYC), 27–28
legal and compliance, 241–242
manufacturing, 68
oil and gas, 143
product management, 266–267
security and privacy, 27
Solvency II, 45–47
utilities, 171–174
Regulatory drivers, information governance, 241–242
Retail
best practices, 84
business-to-business information, 87

as competitive business, 84
contact information, 86–87
critical data elements identification, 292
custom-centric program benefits, 88
customer data attributes, 85–88
database monitoring, 217
demographic information, 86
Global Trade Item Number (GTIN), 96–97
householding information, 87
identity information, 85
information generation, 83
information governance organization establishment, 101–103
information quality improvement, 100–101
marketing expenditure optimization, 84–88
Payment Card Industry (PCI) regulations, 100
PIM, 91
PIM business benefits, 264
product hierarchies, 96
purchase history information, 88
RACI (responsible, accountable, consulted, informed) matrix, 95–96
sensitive information safeguards, 100
store location information quality, 100–101
success, 83
summary, 103
systems environments, 90
vendor information reliability, 98–99
Retention rates case study, 41
Revenue assurance
number of calls case study, 158
telecommunications, 157–158
Rights management, 299
Risk management
Basel II, 20
chief risk officer, 20
credit risk, 20–22, 198
factors, 19–20
information quality improvement, 197–198
information trustworthiness, improving, 19
liquidity risk, 24–25
market risk, 22–23
operational risk, 23–24
vendor risk, 197
See also Banking and financial markets
Roles and responsibilities
best practices, 271–272
Business Intelligence Competency Centers (BICCs), 287–290
charter formalization, 276–278
data stewardship configuration, 278–280
information trustworthiness, 281–283
leverage job descriptions, 283–287
multi-tier structure, 272–276
questions, 271
summary, 290
Routing planning, 252
Rules of visibility, insurance, 39

S

Sales and marketing
affinity relationships, 189
best practices, 179
centralized marketing, 181–182
commissions, 191
contact information, 185
credit limits, 190–191
customer data quality, 179–180
customer duplicates management, 186–187
customer integration, 180–184
customer integration department, 183
customer view, 180–184
data leveraging, 184–186
email marketing, 180–181
evolving topics, 189
inside sales, 190
integrated data requirement, 182
integrated multichannel communications strategy, 182
lead management, 190

marketing campaign effectiveness, 184–186
market segmentation improvement, 179–180
order management, 190
productivity improvement, 190–192
sentiment analysis, 189
silos, 182
social media, 188–189
success stakes, 179
summary, 192
territory alignment, 190
Sales and operations planning (S&OP), 254–255
Sarbanes-Oxley (SOX), 195, 309–310
Scorecarding, 258
Scorecards
case study, 294–295
developing, 294–295
illustrated example, 295
refreshing, 296
Security
cyber threats, 172
defined, 118
fragmented data, linking, 126–129
National Information Exchange Model (NIEM), 128, 129
nuclear documentation, 171
relationships between data, 126–129
smart grid, 3, 171
See also Government
Security and privacy
ERP, 345
regulation compliance, 27
software tools, 350–352
Security information and event management (SIEM)
defined, 222
information governance policies, 223
platform, 222–223
Sensitive data
compounded with other elements, 214
discovery, 214
encryption, 214–215
Sensitive information safeguards
government cross-agency, 118–119
human resources, 227
information security and privacy, 219, 220
legal and compliance, 243
operations, 250–251
product management, 266
retail, 100
telecommunications, 158–159
travel and transportation, 108
Sentiment analysis, 189
Service Target Performance Incentive Scheme (STPIS), 173
Ship-to-addresses case study, 69
Single view
business customers, 107–108
customer, 191–192
education, 132–133
traveler data, 106–107
Skunkworks organization, 275–276
SKU setup, workflow, 93
Smart meters, utilities, 164–165
Social media
human resources, 228
in product business rules approval, 268
sales and marketing, 188–189
telecommunications, 152
Solvency II
defined, 45, 46
information governance applicability to, 47
primer, 46
regulation compliance, 45–47
three-pillar approach, 46
Stakeholders
accounts payable as, 99
buy-in from, 7
in critical elements identification, 292–293

information security and privacy, 213
travel and transportation, 106–108
Storage costs, reducing, 202–203
Store location information, retail, 100–101
Store operations versus marketing case study, 85
Supply chains
best practices, 253
contact information, 258–259
contract renewals support, 258–259
cost containment, 253
customer intimacy, 254
eco-sustainability support, 259
globalization, 254
growth of, 253
hierarchies, 259
hierarchy information, 259
information quality improvement, 259
information trustworthiness, 256–258
manufacturing, 68, 75
pricing negotiations support, 258–259
risk, 254
sales and operations planning (S&OP), 254–255
scorecarding, 258–259
summary, 259
vendor groupings, 259
vendor information, 258–259
Vendor Managed Inventory (VMI), 257–258
Vendor Master Agreements, 259
visibility, 253
System Average Interruption Duration Index (SAIDI), 173

T

Technical metadata
best practices, 298
defined, 308
leveraging for data lineage, 309–310
leveraging for impact analysis, 310–311
See also Metadata
Telecommunications
best practices, 148
billing address, 150
business definitions, 159
business process modification, 148
business term consistency, 156
corporate hierarchies, 150
cost reduction, 157
critical data elements identification, 293
customer experience improvement, 149–152
customer hierarchies, 160
customer preferences, 150
database monitoring, 217
data quality challenge, 159
data quality improvement, 157–158
data reliability improvement, 154–157
demographic data, 150
firmographic information, 150
household structure, 151
identity information, 149
industry challenges, 147–161
industry convergence, 147
information governance organization establishment, 159–160
information management, 157
network data business benefits, 157
network data flows, 156
network performance, 151
network probes, 155
OTT service providers and, 148
performance management, 154–157
product catalogs, 152–153
product hierarchies, 160
product standardization, 152–154
recharge data, 152
requirements for real-time capabilities, 147–148
revenue assurance support, 157–158
sensitive information safeguards, 158–159

social network data, 152
summary, 161
usage rates, 151
Test data
business benefits from management, 207
case study, 206
comparisons before/after, 206
creation support, 205–207
masking and transforming, 206
referential integrity, 206
Top-level business benefits
aligning, 336
in case studies, 338, 339
identifying, 334
Total customer view, 18–19
Traceability, 243
Trade promotions, 67
Travel and transportation
asset data standardization, 112–113
baggage handling, 109
best practices, 105–106
core maintenance and operations support, 112–113
data reliability improvement, 109–110
data trustworthiness, 110
delivery operations, 110
employee data quality, 113–114
enterprise integration, 113
executive sponsorship, 106–107
fleet management, 109
fuel operations, 109
hierarchy definition, 110–111
industry segments, 105
information governance organization establishment, 114–115
location data quality, 111–112
optimization of spare parts inventory, 113
process optimization, 112
regulatory compliance, 112
revenue management, 110
sensitive information safeguards, 108
stakeholder identification, 106–108
summary, 115
tracking, 112
Traveler data
protecting, 108
single view of, 106–107
Trusted platform modules (TPMs), 215

U

"Underwear bomber" case study, 127
Universal Service Order Codes (USOCs), 153
Usage data, telecommunications, 151
Utilities
asset categories, 165, 166, 167
asset condition, 169
asset data improvement, 165–170
best practices, 164
central system, 173
crew management and scheduling efficiency, 170
customer billing quality, 170
distribution assets, 167
electronic meter, 173
energy value chain, 163–164
enterprise asset management system, 170
event synchronization, 173
facilities, 166
fleet assets, 166
geospatial information, 169
industry issues, 163
information governance council, 174
information technology, 166
information trustworthiness, improving, 171–174
location and asset hierarchies, 169
loss of instance of outage data, 173
low voltage concentrator (LVC), 173
mailing cost reduction, 170
maintenance data, 169
nuclear document security, 171

nuclear quality assurance documentation, 171
policies to leverage, optimize, and secure data, 164–165
power outage reporting, 172–174
production and delivery of assets, 166
Public Utilities Commission (PUC), 165, 172
regulation compliance, 171–174
regulations, 172
self-healing, 172
Service Target Performance Incentive Scheme (STPIS), 173
smart grid3 security, 171
smart meters, 164–165
summary, 175
System Average Interruption Duration Index (SAIDI), 173
trusted data, 170

V

Value at Risk (VaR), 22
Vendor Managed Inventory (VMI)
case study, 258
defined, 257
Vendor Master Agreements, 259
Vendors
certifications, 97
information quality, 198–199
information reliability, 98–99
manufacturing, 75
name and identifier, 97
oil and gas, 141
payment terms case study, 198
risk, 197
SLAs case study, 99
View consistency, 129
Virtual Lifetime Electronic Record (VLER) case study, 130
Volatility scores case study, 23

W

Warranty data, manufacturing, 70
Waste, fraud, and abuse prevention (HHS), 123
Workflow
approval, 94
automated data validation, 92–93
categorization, 94
enrichment, 94
item review, 93
NPI process, 92–94
product business rules approval, 267–268
SKU setup, 93
See also New production introduction (NPI)