

INDEX

Symbols

\$, 77
\$(), 420–421, 424
<, 77
@@, 190
2D, 226

A

aborted, 328
accounts
 Identica, 90
 XMPP, 43
.aclass, 421
/action, 190
action descriptions, MUC, 190–191
ActiveX, 75
<actor>, 174
add, 123
Add Contact, 116–117
addClass(), 424
addConnectionPlugin(), 404
addContact(), 411
addHandler(), 57, 58, 183, 410
add_message(), 184
.addNamespace(), 404
addressing, XMPP, 8–9
Ad-Hoc Commands, 206
Adium, 24
admin, 173–174
affiliations, chat rooms, 173–175
AJAX. *See* Asynchronous JavaScript and XML
<already-collaborating>, 272, 280
[anattr], 421
[anattr='somevalue'], 421
anelement, 421
#anid, 421
anonymity, 171–172
AOL Instant Messenger, 5
Apache, BOSH, 437
append(), 424
applications. *See also specific applications*
 authentication, 379
 design, 23–36
 performance, 379
 XMPP, 387–399
Approve button, 120
Array, splice(), 261
Arthur
 contents(), 95
 <div>, 92–93
 Identica, 89–90
 JIDs, 93
 <message>, 93–94
 offline messages, 97–101
 <presence>, 93
 UI, 92
arthur.css, 91–92
arthur.html, 91
arthur.js, 99–101
ask, 405
Asynchronous JavaScript and XML (AJAX), 31
 Google, 42
 long polling, 32
 RID, 379
 SID, 379
attach, 381, 382
attach(), 379, 383
attacher, 381
attacher.css, 384
attacher.js, 384
attr(), 423, 424
attributes, 270
attrs(), 55
auth, 17, 83
AUTHENTICATING, 48
authentication, 4
 applications, 379
 components, 7
 Hello, 40
 SASL, 379
 Strophe, 64
 TLS, 20

AUTHFAIL, 48
 automatic logins, session attachment, 380–384
 available, 11
 away, 12

B

backend, 390
 Backspace, 289
 bad-request, 305
 <bad-request>, 17
 /ban, 193
 bare JIDs, 8
 batching, 398
 beginPath(), 227
 Bi-directional streams Over Synchronous HTTP
 (BOSH), 41, 70
 Apache, 437
 connection managers, 48, 388, 429–439
 encryption, 380
 HTTP, 32, 378, 388
 HTTP POST, 435
 load balancing, 388
 nginx, 437–438
 performance, 379
 proxies, 437–439
 security, 379–380
 session attachment, 377–385
 Tape, 438–439
 bind(), 123, 425
 <bind>, 20
 Board, 339, 343
 board.js, 339, 362–365
 <body>, 44, 270, 332
 BOSH, 32
 <message>, 15
 show_traffic(), 70
 stanzas, 69–70
 XHTML-IM, 94
 boolean, 209
 BOSH. *See* Bi-directional streams Over
 Synchronous HTTP
 BOSHClient, 382
 BOSHsrv, 390
 both, 111, 120
 bots, 7, 300–301
 broadcast(), 319
 broadcast_started, 234, 239
 browsers, 30, 33, 69
 \$build(), 54
 built-in connection managers, 430–431
 buttons, 50
 Bytestreams, 162

C

c(), 54–55
 callbacks
 connect, 51
 connect(), 379
 CONNECTED, 49
 created(), 233
 HTTP, 28
 cancel, 17, 83, 208
 <canvas>, 346
 SketchCast, 225–228
 category, 148
 chaining functions, 54, 422
 chat, 5, 103–144. *See also* Gab; Multi-User Chat
 Dig, 162–163
 keypress, 285–286
 <message>, 104–105, 286
 NetPad, 284–287
 on_message(), 286–287
 <presence>, 104–105
 start_collaboration(), 285
 stop_collaboration(), 285
 type, 56
 chat, 12, 14, 94, 183
 type, 94, 183, 188
 chat area
 Gab, 122–126
 <message>, 105
 MUC, 166
 , 107
 chat history, 186–187
 chat rooms
 affiliations, 173–175
 anonymity, 171–172
 connected, 179
 creating, 172–173
 entering and leaving, 168–171
 joining, 179–182
 <message>, 183–185
 MUC, 167–171
 nicknames, 168
 on_presence(), 180–181
 roles, 173–175
 sending and receiving messages, 171
 topics, 191–192
 troublemakers, 192–194
 Chat State Notifications, 130–133
 Chesspark, 27
 child
 disco#items, 148–149
 <iq>, 268
 <item>, 239
 stanzas, 54–55

- <start>, 282
 - <stream:stream>, 9
 - XML, 71
 - children(), 422
 - click(), 47, 116, 426
 - Disconnect button, 240, 280, 283
 - SketchCast, 227
 - click(), 123
 - clients, 7
 - Toetem, 322–324, 334–338, 345–351
 - clone(), 398
 - clones, 398–399
 - <closed-node/>, 18
 - closing elements, 4
 - cluster servers, 388, 391–392
 - internal federation, 393
 - cnode(), 54–55
 - col, 339
 - <collaborate>, 272, 280
 - color, 228
 - compare_priority(), 257–258
 - compare_state(), 257–258
 - components, 7–8
 - bots, 301
 - load balancing, 392–393
 - <configure>, 213
 - configured(), 233
 - configure_error(), 233
 - <conflict>, 17, 212
 - connect, 50, 51
 - Connect button, 278
 - connect()
 - callbacks, 379
 - connect, 51
 - JIDs, 48
 - password, 49
 - CONNECTED, 48, 64–65, 403, 407
 - callbacks, 49
 - connected, 56
 - connected, 70
 - chat room, 179
 - CONNECTED, 56
 - handle_message(), 93
 - master, 279
 - <message>, 125, 188
 - NetPad, 278–279, 281
 - <presence>, 284
 - pubsub nodes, 230
 - roster, 111
 - Toetem, 323
 - CONNECTING, 48
 - connection, JIDs, 56
 - connection
 - log(), 51
 - null, 51
 - connection managers
 - BOSH, 48, 429–439
 - built-in, 430–431
 - Hello, 47–53
 - multiple, 388–391
 - persisting, 380
 - standalone, 430
 - Strophe, 48, 64
 - TCP, 430
 - XML, 430
 - XMPP, 18, 31–32
 - connection.simple.offline(), 404
 - CONNFAIL, 48
 - contact_added, 116–117
 - contact_added(), subscribe, 117
 - contents(), 95
 - continue, 17, 83
 - cookies, 380
 - Erlang, 391
 - Haproxy, 390
 - <create>, 212
 - created(), 231, 233
 - create_error(), 231
 - create_game(), 326–328
 - credentials, 379
 - cross-domain requests, Flash, 435–436
 - crossdomain.xml, 435–436
 - CSS, 70
 - jQuery, 33, 41, 423–424
 - on_public_message(), 186
 - css(), 423
 - currentSide(), 340
 - custom event handlers, 47
- ## D
- Data Forms, 173, 206–207
 - pubsub, 205
 - debugging console. *See* Peek
 - <delay>
 - handle_message(), 98
 - <message>, 98
 - on_public_message(), 186–187
 - Delayed Delivery, 98
 - DELETE, 28
 - delete(), 263
 - delete(pos), 253
 - Delete key, 289
 - deleteContact(), 411
 - deleteHandler(), 57
 - Dent, Arthur, 88
 - dents, 88
 - <message>, 88
 - Deny button, 120

- /deop, 194
- <desc>, 208
- dialback, 20
- dialog()
 - <div>, 44, 68
 - jQuery UI, 49, 68
- dialog('open'), 134
- Dig, 146–163
 - chat, 162–163
- dig.css, 151–152
- dig.html, 150–151
- dig.js, 157–160
- directed presence, 13, 168
- disco pubsub nodes, 149
- disco#info, 146–148
 - <feature>, 272
 - IQ-get, 147
 - NetPad, 278
- disco#items, 146–147, 148–149
 - child, 148–149
 - MUC, 148
- disconnect(), 240
- Disconnect button, 133–134
 - click, 240, 280, 283
 - event handlers, 324
 - NetPad, 280
 - reception_started, 240
- DISCONNECTED, 48, 403, 407
- disconnected, 70
 - Toetem, 323
 - unavailable, 182
- DISCONNECTING, 48
- <div>, 72
 - Arthur, 92–93
 - dialog(), 44, 68
 - id, 44, 122
 - JIDs, 126, 129
 - jQuery UI, 44
 - log, 44
 - on_message(), 126
- Django, 380–384
- <dl>, 155
- dnd, 12
- DNS, 8
- document object model (DOM), 46, 398–399
 - jQuery, 419, 420
 - send(), 74
 - tree(), 54
- document ready event, 46
- do_local(), 259
- DOM. *See* document object model
- DOMParser, 75
- do_remote(), 259, 289–290

- draw_board(), 346
- draw_piece(), 346–347
- Drop.io, 25

E

- each(), 424, 425
- ejabberd, 431–434
 - crossdomain.xml, 436
- ejabberd.cfg, 391, 432
- else, 336–337
- emoticons, 270
- empty(), 424
- encryption, 4, 20, 380
- end_game(), 330, 332
- Entity Capabilities, 35
- Erlang cookie, 391
- error, 14, 15
- <error>, 17–18, 83–85
 - make_error_from_iq(), 232
 - <presence>, 84–85
 - type, 83
- eval(), 65, 76
- <event>, 217, 269
- event(s), 215
 - forms, 234
 - pubsub, 215, 234–238
- event handlers, 324
 - Hello, 57–62
 - jQuery, 47
- event_data, 47
- execute(), 260
- Explorer, 146
- eXtensible Messaging and Presence Protocol (XMPP), 3–21
 - accounts, 43
 - addressing, 8–9
 - application design, 23–36
 - applications, 387–399
 - attributes, 270
 - browsers, 33
 - clients, 7
 - components, 7–8
 - connection managers, 18, 31–32
 - disconnection, 20
 - HTTP, 27–30
 - Identica, 90
 - JavaScript, 32–33
 - network, 6–8
 - plug-ins, 8
 - protocols, 34–36
 - security, 4
 - servers, 6, 33–34

- stanzas, 9–18
- streams, 19
- TCP, 378
- URLs, 268
- XML, 4, 65

Extension Protocols, 271

F

Facebook, 3

false, event handlers, 58

<feature>

- disco#info, 272
- IQ-result, 280
- statistics, 149
- var, 148

<feature-not-implemented/>, 17

<field>, 211

Field Standardization for Data Forms, 208, 210–211

fields

- forms, 208–210
- <required>, 208
- <value>, 208

file://, flXHR, 53

filter(), jQuery, 421

find(), jQuery, 422

Finder, 146

find_game(), 333

find_next(), 260

finished, game status, 328

firewalls, 28, 161

- HTTP, 32

fixed, 209

Flash

- cross-domain requests, 435–436
- flXHR, 41

flXHR, 41, 43, 435

- ejabberd, 434
- file://, 53

flXHR.js, 43

for, 424

<forbidden/>, 17

<forbidden>, 212

form, 208

forms, 234

- Ad-Hoc Commands, 206
- <desc>, 208
- fields, 208–210
- <instructions>, 207, 208
- metadata, 207, 208
- MUC, 206, 208–209
- pubsub, 206–211
- Service Discovery, 206
- standardized, 210–211

- type, 208
- <x>, 207, 208

FORM_TYPE

- <name>, 211
- var, 210

Free Network Service, 89

from

- stanzas, 10, 57–58
- subscription, 120

full JIDs, 8

G

Gab, 103–144

- Add Contact, 116–117
- chat area, 122–126
- Chat State Notifications, 130–133
- notifications, 130–133
- roster area, 109–122
- UI, 105–109

gab.css, 108–109

<game>, 304, 309

game-ended, 336–337

<game-ended>, 308, 333, 338

gameOver(), 341–342

game_room(), 331

games, 299–373. *See also* Toetem

- <message>, 303
- MUC, 300
- <resign>, 307–308
- <start>, 306
- status, 328
- winner, 310

<games>, 304

game-started, 336–337

<game-started>, 308, 331, 332

game_started, 350

game-state, 351

GET, 15, 28, 41

get, 15

getContext(), 226

getElementById(), 420

getElementsByTagName(), 420

Gmail, 24, 82

Google, 42

Google Apps for Domains, 24

Google Talk, 24, 82

Google Wave, 24, 251

groupchat, 14, 171

Groupie, 166–202

- joining rooms, 179–182
- keypress, 184
- privacy, 187–190
- UI, 175–179

groupie.css, 176–178
 groupie.html, 175–176
 groupie.js, 195–201
 groups, 406
 groupware, 253

H

handle_incoming_pin(), 58
 handle_message(), 93, 96, 98
 <delay>, 98
 handle_pong(), 60
 Haproxy, 390–391
 haproxy.cfg, 390
 <head>, 44
 headline, 15
 Hello, 39–62
 authentication, 40
 connection managers, 47–53
 event handlers, 57–62
 HTTP, 53
 IQ-get, 56
 login, 40
 stanzas, 53–57
 UI, 43–45
 hello.css, 44
 hello.js, 60–61
 hidden, 209
 hide(), 423
The Hitchhiker’s Guide to the Galaxy, 88
 horizontal scaling, 387–393
 href, 122
 HTML
 jQuery, 33, 41, 419
 players, 334
 roster_changed, 414
 , 122
 html(), 423, 424
 <html>, XHTML-IM, 94, 268
 HTTP, 15
 BOSH, 32, 378, 388
 browsers, 69
 callbacks, 28
 firewalls, 32
 GET, 28, 41
 Hello, 53
 JavaScript, 435
 long polling, 30–31
 POST, 41
 round trips, 394
 SSL, 28
 stanzas, 394
 TCP, 390
 XMPP, 27–30
 http, 389
 http://, 53

HTTP POST, 15, 28, 41, 435
 httpclose, 390
 httpd.conf, 437

I

ICQ, 5
 id, 113, 122
 color, 228
 <div>, 44, 122
 <item>, 217–218
 stanzas, 10–11, 57–58
 Identica, 88–90
 <identity>, 148
 IQ-result, 280
 statistics, 149
 IE. *See* Internet Explorer
 IETF, 5–6
 if, 330, 336–337
 if else, 345
 importNode(), 95–96
 In-Band Bytestreams, 396
 incoming, 70
 .incoming, 67
 indentation, XML, 71–73
 index.html, 382–383, 435
 init()
 JIDs, 257
 OpTrans, 286–287
 start_collaboration(), 286–287
 Strophe, 403
 insert(), 263
 insert(pos, char), 253
 insert_contact(), 112
 instant messaging (IM). *See* chat
 instant pubsub nodes, 212–213
 <instructions>, 207, 208
 internal federation, 388, 393
 <internal-server-error/>, 17
 Internet Explorer (IE)
 <canvas>, 346
 DOMParser, 75
 importNode(), 95–96
 selectionEnd, 289
 selectionStart, 289
 XMLHttpRequest, 30
 Internet Relay Chat (IRC), 165
 ip_hash, 389
 \$iq(), 54, 65, 76
 <iq>, 9–10
 child, 268
 error, 15
 get, 15
 id, 113
 In-Band Bytestreams, 396
 players, 304

- referee, 318
- result, 15
- sendIQ(), 114
- set, 15
- stanzas, 15–17
- IQ-error, 15, 82
 - referee, 308
- IQ-get, 15, 82, 111
 - disco#info, 147
 - Hello, 56
 - <items>, 238
 - <ping/>, 56
- IQ-result, 15, 82, 280
 - referee, 309
- IQ-set, 15, 82, 304
 - <move>, 308
 - <publish>, 236
 - pubsub nodes, 211–212
 - <query>, 111
 - troublemakers, 192
 - Wait button, 324
- IRC. *See* Internet Relay Chat
- is_playing(), 326
- is_waiting(), 320
- <item/>, 408, 424
- <item>, 155
 - child, 239
 - <event>, 217
 - id, 217–218
 - insert_contact(), 112
 - on_event(), 239
 - <publish>, 216
 - remove, 119
- <item-not-found/>, 17
- <items>, 219, 238

J

- Jabber, 5
- Jabber Extension Proposals (JEPs), 5
- jabber identifiers (JIDs), 8–9
 - Arthur, 93
 - connect(), 49
 - connection, 56
 - <div>, 126, 129
 - init(), 257
 - <message>, 126–129
 - presence, 319
 - referee, 302
 - session attachment, 379
 - troublemakers, 193–194
 - waiting list, 319
- Jabber Software Foundation (JSF), 5
- jabber:client, 268
- JabberHTTPBind, 439

- jabber:iq:register, 162
- jabber:iq:roster, 111
- jabber:x:delay, 186–187
- Java, 380
- JavaScript
 - each(), 425
 - eval(), 76
 - Google, 42
 - HTTP, 435
 - prototype, 339
 - same origin policy, 41, 429
 - session attachment, 384
 - String, 96
 - Strophe, 32
 - XMPP, 32–33
- JEPs. *See* Jabber Extension Proposals
- jid, 257, 424
- jid_map, 257
- jid-multi, 209
- jid:node, 155
- JIDs. *See* jabber identifiers
- jid-single, 209
- jid_to_id(), 112
 - on_presence(), 115
- Jingle, 396
- jQuery, 33, 41, 419–427
 - \$(), 420–421
 - attr(), 423
 - chaining functions, 422
 - children(), 422
 - clone(), 398
 - CSS, 423–424
 - css(), 423
 - DOM, 419, 420
 - event handlers, 47
 - filter(), 421
 - find(), 422
 - Google, 42
 - hide(), 423
 - HTML, 419
 - html(), 423
 - live(), 157
 - not(), 422
 - <script>, 420
 - selectors, 421
 - show(), 423
 - text(), 423
 - UI, 41
- jQuery UI, 42
 - dialog(), 49, 68
 - <div>, 44
 - Google, 42
 - sortable(), 123
 - tabs, 122
 - tabs(), 107
 - themes, 42

JSF. *See* Jabber Software Foundation
JSON-P, 435

K

keydown, 96
keypress, 47, 96
 chat, 285–286
 Groupie, 184
 /me, 190
 <message>, 97
 NetPad, 285–286
 notifications, 131
 privacy, 188–189
 send_op(), 289
 /topic, 192
keyup, 96–97
/kick, 192–193

L

latency, 394–396
leastconn, 390
length, 424
 String, 96
, 107, 122
library, 408
lineTo(), 227
line_width, 228
list-multi, 209
list-single, 209
live(), 123, 157
load balancing, 388, 392–393
local part, JIDs, 8
location, 389
log, 44
log(), 51
login
 automatic, 380–384
 Hello, 40
 Peek, 68
 pubsub nodes, 228–234
 security, 379
long polling, 30–32

M

make_error_from(), 232
make_error_from_iq(), 232
map, 339
Markdown, 143
massively multi-player online role-playing games
 (MMORPGs), 299
master, 279
max_items, 219

/me, 190
/media/, 382
MEDIA_ROOT, 383
Mediated Invitation, 306
member, 173
<message>, 9–10
 addHandler(), 58
 Arthur, 93–94
 <body>, 15
 broadcast(), 319
 chat, 104–105, 286
 chat, 94
 chat area, 105
 chat rooms, 183–185
 connected, 125, 188
 content, 15
 <delay>, 98
 dents, 88
 <error>, 83–84
 <event>, 217
 events, 215
 games, 303
 handle_message(), 98
 In-Band Bytestreams, 396
 jabber:client, 268
 JIDs, 126–129
 keypress, 97
 namespaces, 269
 NetPad, 253, 273, 286
 notifications, 221
 on-message(), 334–336
 <op>, 273–274
 players, 303, 305
 process_op(), 290–291
 stanzas, 13–15
 <stop>, 273
 <thread>, 15
 type, 13–14, 94
 XHTML-IM, 94
metadata, forms, 207, 208
microblogging. *See* Arthur
Miller, Jeremie, 5
MMORPGs. *See* massively multi-player online role-
 playing games
moderator, 172, 173–174
 troublemakers and, 192
mod_http_bind, 431–434
modify, 17, 83
modifyContact(), 411
mousedown, 225, 226
mousemove, 226, 235–236
 <render_action>, 237–238
mouseup, 225, 226
move(), 341
<move>
 IQ-set, 308

- players, 308
- referee, 349
- switch, 343
- moveTo(), 227
- moveToCoords(), 239
- \$msg(), 54, 65, 76
- /msg, 188–189
- MSN Messenger, 5
- MUC. *See* Multi-User Chat
- muc_msg(), 331
- Multi-User Chat (MUC), 165–202. *See also* chat rooms; Groupie
 - action descriptions, 190–191
 - anonymity, 171–172
 - chat area, 166
 - chat rooms, 167–171
 - disco#items, 148
 - forms, 206, 208–209
 - games, 300
 - referee, 325–334
 - type, 56
- my_callback(), 49
- MyNamespace, 45–46
- my_ping_handler(), 56
- myplugin, 402
- my_side, 350
- MySpace, 3

N

- name, 57, 58, 148, 405
- name, 392
- <name>, 211
- namespaces, 45–46, 268–270
 - <error>, 83
 - Peek, 69
 - <pubsub>, 212
 - Strophe, 403, 404
- NAT. *See* network address translation
- NetPad
 - chat, 284–287
 - connected, 278–279, 281
 - disco#info, 278
 - Disconnect button, 280
 - keypress, 285–286
 - <message>, 253, 273, 286
 - on_collaborate(), 281
 - on_disco_info(), 279
 - on_message(), 282–283, 286–287
 - <presence>, 253
 - protocols, 271–274
 - Service Discovery, 271, 278
 - UI, 274
 - update_pad(), 288

- netpad.css, 276
- netpad.html, 274
- netpad.js, 277, 291–298
- network, XMPP, 6–8
- network address translation (NAT), 28, 161
 - Jingle, 396
- New Chat, 134
- new Referee.Board(), 339
- new_game(), 328, 343
- nginx, 388–389, 437–438
- nicknames, 168, 170, 175, 336
- node, 149, 212, 222
- normal, 14, 183
- not(), 422
- not-allowed, 217
- notifications
 - Gab, 130–133
 - keypress, 131
 - <message>, 221
 - on_message(), 132–133, 349
 - pubsub nodes, 221
- notify, 283
- <not-waiting>, 324
- ns, 58
- NS_TOETEM, 322
- null, 51, 58

O

- offline(), 403–404
- offline messages, 97–101, 148
- offset(), 226
- OMB. *See* Open Microblogging Protocol
- on_click(), 426
- on_collaborate(), 281
- on_disco_info(), 279
- on_event(), 231, 239
- on_game_start(), 325–326
- on_info(), 154–157
- on_iq(), 320–321, 325, 343
- on_items(), 154–157
- online(), 403–404
- on_message(), 126–127, 334–337, 349–350
 - chat, 286–287
 - <div>, 126
 - NetPad, 282–283, 286–287
 - notifications, 132–133, 349
 - referee, 324, 349
 - scroll_chat(), 125
 - <start>, 283
 - <stop>, 283
 - Toetem, 323–324
 - watching, 347
- on_move(), 343–344

on_old_items(), 239
 <on_presence>, 185
 on_presence(), 115, 129, 180–181, 318, 329
 on_public_message(), 183–184, 186–187, 191
 on_resign(), 325–326, 333
 on_roster(), 112, 114–115
 on_roster_changed(), 118
 on_stop_waiting(), 321–322
 on_waiting(), 321–322
 /op, 194
 <op>, 273–274
 Open Microblogging Protocol (OMB), 89
 Openfire, 439
 opening elements, 4
 operational transformation, 251–298
 o_player, 350
 OpTrans, 286–287, 289–290
 optrans.js, 263–267
 outcast, 173–174, 193
 outgoing, 70
 overhead, 29
 owner, 172, 173–174

P

parallelization, 394
 <parsererror>, 75
 parsers, XML, 74–75
 participant, 173, 175
 password, 49, 379
 pause(), 395
 Peek, 63–85
 login, 68
 namespaces, 69
 <presence>, 81
 Software Version, 81–82
 traffic, 68–70
 UI, 66–67
 peek.css, 65, 67, 71
 peek.html, 65, 66
 peek.js, 72–73, 77–80
 Peek.pretty_xml(), 72–73
 peer-to-peer file transfer, 161
 pending, 217
 pending_subscriber, 121
 PEP, 35
 performance, 379
 perform_op(), 261
 Personal Eventing Protocol, 143
 phase, 309
 <ping/>, 56
 <player>, 304
 players
 broadcast(), 319
 HTML, 334

 <iq>, 304
 <message>, 303, 305
 <move>, 308
 nicknames, 336
 on_iq(), 320–321
 on_resign(), 333
 remove_waiting(), 319
 send_game(), 331
 Toetem, 303–305
 players, 334
 playing, 328, 330, 331
 plug-ins
 rosters, 404–412
 Strophe, 43, 401–417
 XMPP, 8
 polling, 30–31
 prepend(), 424
 \$pres(), 54, 65, 76
 presence
 JIDs, 319
 priority, 180
 subscription, 105
 <presence>, 9–10, 11–13
 addHandler(), 183
 Arthur, 93
 available, 11
 chat, 104–105
 connected, 284
 directed, 13
 <error>, 84–85
 extending, 12, 35
 if, 330
 NetPad, 253
 new_game(), 328
 normal, 11–12
 on_collaborate(), 281
 on_presence(), 318
 Peek, 81
 referee, 303, 318, 329
 <register>, 318
 roster area, 106
 subscribed, 120
 substitutions, 12–13
 type, 120
 unsubscribed, 120
 presenceChanged(), 410–411
 presence_value(), 112
 Presently, 25
 pretty_xml(), 72
 preventDefault(), 97, 289
 priority, 180
 <priority>, 12, 273–274
 privacy, 105, 187–190
 process_op(), 290–291
 Prosody, 439

protocols

- NetPad, 271–274
- Toetem, 302–310
- XMPP, 34–36

prototype, 339

proxies, 161–162

- BOSH, 437–439
- security, 435–439

ProxyPass, 437

ProxyPassReverse, 437

<publish>

- events, 215
- IQ-set, 236
- <item>, 216
- <pubsub>, 215
- pubsub nodes, 215–216

publish_action(), 236

Publish-Subscribe (pubsub), 147, 203–249. *See also*

- SketchCast
- Data Forms, 205
- events, 215, 234–238
- forms, 206–211
- pubsub nodes, 205, 211–222
- UI, 222–225
- XEPs, 95

pubsub. *See* Publish-Subscribe

<pubsub>

- <create>, 212
- namespaces, 212
- <publish>, 215
- <subscriptions>, 219

pubsub nodes

- <configure>, 213
- configuring, 213–215
- <conflict>, 212
- connected, 230
- created(), 231
- create_error(), 231
- <forbidden>, 212
- instant, 212–213
- IQ-set, 211–212
- <items>, 219
- login, 228–234
- notifications, 221
- on_event(), 231
- <publish>, 215–216
- pubsub, 205, 211–222
- reception_started, 232
- <subscribe>, 216–218
- subscribed(), 231
- subscribe_error(), 231
- subscription, 217
- <unsubscribe>, 218

pubsub#title, 211

Punjab, 381

- crossdomain.xml, 436
- standalone connection managers, 431–432

pushing data, 28

PUT, HTTP, 28

Python, 380–384, 431

Q

<query>

- IQ-get, 82, 111
- IQ-set, 111
- node, 149

R

rawInput(), 64

- Strophe, 75

rawOutput(), 64

ready(), 46

reception_started, 238

- Disconnect button, 240
- pubsub nodes, 232

<recipient-unavailable/>, 17, 273

referee

- Board, 339, 343
- <body>, 332
- broadcast(), 319
- create_game(), 327–328
- end_game(), 332
- <game-started>, 332
- <iq>, 318
- IQ-error, 308
- IQ-result, 309
- is_waiting(), 320
- JIDs, 302
- <move>, 349
- MUC, 325–334
- on_iq(), 320–321, 325
- on_message(), 324, 349
- on_move(), 343–344
- on_presence(), 318, 329
- playing, 330
- <presence>, 303, 318, 329
- send_error(), 320
- send_games(), 330–331
- Toetem, 300, 301, 325–334
- waiting, 328
- waiting list, 317–322

referee.css, 312

referee.html, 311

referee.js, 312–313, 351–362

<register>, 318

- <remote-server-not-found/>, 17
- <remote-server-timeout/>, 17
- remove, 119
- remove(), 424
- removeClass(), 424
- remove_waiting(), 319, 320
- <render_action>, 237–238
- render_action(), 236–237
- Request for Comments (RFCs), 5, 83, 95
- <required>, 208
- <resign>, 307–308, 338
- Resign button, 336–337
 - <resign>, 338
- resource part, JIDs, 8
- resources, 405
- result, 15, 208
- Results Set Management, 396
- resume(), 395
- return, 58
- RFCs. *See* Request for Comments
- rhb, 439
- RID, 378–380
- roles, chat rooms, 173–175
- room_joined, 181
- room_joined(), 182
- roster(s)
 - bots, 301
 - connected, 111
 - disco#info, 148
 - Gab, 109–122
 - IQ-get, 111
 - plug-ins, 404–412
 - <presence>, 106
- Roster Versioning, 396
- rosterChanged(), 408
- roster_changed, 407, 414
- roster-item, 399
- rosterwatch.css, 414
- rosterwatch.html, 413
- rosterwatch.js, 415–416
- round trips, HTTP, 394
- row, 339
- Ruby on Rails, 380

S

- same origin policy, 41, 429
- SASL. *See* Simple Authentication and Security Layers
- <script>, 96, 420
- scripts, 42
- scroll_chat(), 125
- scrollHeight, 70
- scrollTop, 70

- security, 28
 - BOSH, 32, 379–380
 - login, 379
 - proxies, 435–439
 - same origin policy, 429
 - XMPP, 4
- selectionEnd, 289
- selectionStart, 289
- selectors, jQuery, 421
- send(), 56, 74, 395
- send_error(), 320
- send_game(), 331
- send_games(), 330–331
- sendIQ(), 112, 114
- send_op(), 289
- send_ping(), 56, 59
- serialization, XML, 397
- serialize(), 70
- server, 389
- servers, 6, 33–34
- server-to-server protocol, 388, 393
- Service Discovery, 35, 145–163. *See also* Dig forms, 206
 - NetPad, 271, 278
- service records (SRV), 18
- service_unavailable, 83
- <service_unavailble/>, 17
- <session>, 20
- session(s)
 - performance, 379
 - Toetem, 317–324
- session attachment, BOSH, 377–385
- Session Identifier (SID), 378
 - AJAX, 379
 - cookies, 380
 - Strophe, 379
- set, 15
- short names, 391
- show, 405
- show(), 423
- <show>, 12
- show_error(), 232
- show_traffic(), 69, 70, 72
- SID. *See* Session Identifier
- Simple Authentication and Security Layers, authentication, 379
- Simple Authentication and Security Layers (SASL), 4, 20, 28
- SketchCast, 203–249
 - <canvas>, 225–228
 - click, 227
- sketchcast.css, 224–225
- sketchcast.html, 223–224
- sketchcast.js, 225–226, 227–228

- sname, 392
- Socialcast, 25
- Software Version, 81–82
 - disco#info, 148
 - XEPs, 95
- some_global, 46
- sortable(), jQuery UI, 123
- spam, 4
- , 157
- splice(), 261
- SRV. *See* service records
- SSL, 28
- standalone connection managers, 430
 - Punjab, 431–432
- standards list, 35
- stanzas, 4
 - from, 10
 - to, 10
 - <body>, 69–70
 - child, 54–55
 - <error>, 17–18
 - Hello, 53–57
 - HTTP, 394
 - id, 10–11
 - <iq>, 15–17
 - large size, 395–396
 - matching, 57–58
 - <message>, 13–15
 - streams, 9
 - Strophe.Builder, 54–56
 - type, 10
 - XMPP, 9–18
- <start>, 273, 280, 334
 - child, 282
 - games, 306
 - on_message(), 283
- Start Game button, 334
- start_collaboration(), 281–282
 - chat, 285
 - init(), 286–287
 - update_pad(), 288
- start-game(), <game-started>, 331
- start_game(), 330
- starting
 - game status, 328
 - start_game(), 330
- startproject, 381
- start_time(), 59
- <state>, 273–274
- state vector, 273–274
 - operational transformation, 255
 - <priority>, 273–274
- statefulness, 29
- statistics, 149
- status, 405
 - games, 328
- <status>, 12
- statusChanged(), 407–410
 - addHandler(), 410
 - Strophe, 403
- StatusNet, 89
- <stop>, 280
 - <message>, 273
 - on_message(), 283
- stop_collaboration()
 - chat, 285
 - notify, 283
- stop-waiting
 - on_iq(), 320–321
 - on_stop_waiting(), 321
- <stop-waiting>, 304, 305
- <stream:features>, 19
- streams, 9, 19
- <stream:stream>, 9, 19, 270
- String, 96
- stroke(), 227
- Strophe, 25–27, 42, 403–404
 - attach(), 379, 383
 - authentication, 64
 - connection managers, 48, 64
 - Flash, 41
 - flXHR, 41
 - handlers, 40
 - JavaScript, 32
 - pause(), 395
 - plug-ins, 43, 401–417
 - rawInput(), 75
 - resume(), 395
 - RID, 379
 - send(), 395
 - SID, 379
 - xmlInput(), 75
- Strophe.Builder, 54–56, 74, 76
- strophe.js, 42
- Strophe.serialize(), 70, 72
- <subject>, 191
- submit, 208
- subscribe, 13, 117
- subscribe(), 411
- <subscribe>, 216–218
- subscribed, 119, 120
- subscribed(), 231
- subscribe_error(), 231
- subscription, 405
 - from, 120
 - to, 111
 - both, 111, 120
 - pending, 217
 - presence, 105
 - pubsub nodes, 217

<subscriptions>, 219, 222
switch, 325, 343

T

t(), 55
tabs
 jQuery UI, 122
 , 107
tabs(), 122–123
 jQuery UI, 107
Tape, BOSH, 438–439
TCP, 378, 390, 430
<td>, 334
templates, XEPs, 271
templates, 382
text(), 423
<text>, 83
text editor. *See* NetPad
Textile, 143
text-multi, 209
text-private, 208
text-single, 208
text_to_xml(), 74–75
themes, jQuery UI, 42
<thread>, 15
threads, 15
Tic-Tac-Toe. *See* Toetem
Tigase, 439
TLS. *See* Transport Layer Security
to
 stanzas, 10
 subscription, 111
Toetem
 bots, 300, 301
 <canvas>, 346
 clients, 322–324, 334–338, 345–351
 connected, 323
 disconnected, 323
 logic, 338–372
 management, 325–334
 on_message(), 323–324
 players, 303–305
 protocols, 302–310
 referee, 300, 301, 325–334
 sessions, 317–324
 waiting list, 317–324
toetem.css, 315–316
toetem.html, 313–314
toetem.js, 365–372
/topic, 192
topics, chat rooms, 191–192
toString(), 54, 339–340

traffic, Peek, 68–70
transform_op(), 261, 262–263
Transport Layer Security (TLS), 4, 20, 28
tree(), 54
trigger(), 47, 425–426
troublemakers, chat rooms, 192–194
true, 58
Twisted Python, 431
Twitter, 3, 25
type
 available, 11
 cancel, 208
 chat, 56
 chat, 94, 183, 188
 <error>, 17, 83
 form, 208
 forms, 208
 <identity>, 148
 <message>, 13–14, 94
 MUC, 56
 <presence>, 120
 result, 208
 stanzas, 10, 57–58
 submit, 208
 subscribe, 13

U

UI. *See* user interface
, 107, 122
unavailable, 182
undefined, 58
unsubscribe(), 411
<unsubscribe>, 218
unsubscribed, 119
 <presence>, 120
up(), 55
update_pad(), 288
upstream, 389
URIs, 268
urls.py, 381
urn:iETF:params:xml:ns:xmpp-stanzas, 83
user interface (UI). *See also* jQuery UI
 Arthur, 92
 Gab, 105–109
 Groupie, 175–179
 Hello, 43–45
 jQuery, 42
 NetPad, 274
 Peek, 66–67
 pubsub, 222–225
User Tune, 215
username, 379

V

validMove(), 340–341
 <value>, 208
 var, 148, 210
 vertical scaling, 394–399
 views.py, 382
 virtual pen, 225
 <VirtualHost>, 437
 visitor, 173, 175

W

wait, 17, 83, 273
 Wait button, 300, 324
 waiting, 320–321, 328
 <waiting>
 IQ-set, 304
 <player>, 304
 Wait button, 324
 waiting list, 324
 waiting list, Toetem, 317–324
 Watch Game button, 347–348
 watching, 347
 while, 424
 winner, 310

X

<x>, 186–187, 207, 208
 xa, 12
 XEPs. *See* XMPP Extension Proposals
 XHTML-IM, 94–96
 <html>, 268
 <message>, 94

XML

 child, 71
 connection managers, 430
 indentation, 71–73
 jQuery, 41
 namespaces, 268
 parsers, 74–75
 serialization, 397
 XMPP, 4, 65
 xml, 96, 270
 xml2html(), 69
 .xml_aname, 71
 .xml_avalue, 71
 XMLHttpRequest, 30
 xmlInput(), 64, 75
 xml:lang, 270
 xmlns, 269, 270
 xmlOutput(), 64
 .xml_punc, 71
 .xml_tag, 71
 .xml_text, 71
 XMPP. *See* eXtensible Messaging and Presence Protocol
 XMPP Council, 271
 XMPP Extension Proposals (XEPs), 6, 35
 pubsub, 95
 Software Version, 95
 templates, 271
 XSF, 95
 XMPP Standards Foundation (XSF), 4, 6, 35–36
 XEPs, 95
 /xmpp-httpbind, 389, 390, 437
 x_player, game_star, 350
 XSF. *See* XMPP Standards Foundation
 XSF Council, 271

Y

Yahoo Pager, 5
 Yammer, 25