```
************
 1
 3
     #Maria
 4
 5
     config t
 6
     int fa0/0
 7
     ip address 192.168.12.1 255.255.255.0
8
     no shut
9
    exit
10
    exit
     sh ip int br
11
    config t
12
13
14
    #Jim
     config t
15
     int fa0/0
16
17
    ip address 192.168.12.2 255.255.255.0
18
     no shut
19
     exit
     int fa1/0
20
    ip address 192.168.23.2 255.255.255.0
21
22
    no shut
23
    exit
     int fa2/0
24
25
     ip address 192.168.24.2 255.255.255.0
26
    no shut
    exit
27
28
    sh ip int br
    config t
29
30
    #Jack
31
32
    config t
     int fa0/0
33
34
     ip address 192.168.23.3 255.255.255.0
35
    no shut
36
    exit
     int fa1/0
37
38
    ip address 192.168.35.3 255.255.255.0
39
    no shut
    exit
40
     exit
41
     sh ip int br
42
43
    config t
44
    #James
45
46
     config t
    int fa0/0
47
    ip address 192.168.24.4 255.255.255.0
48
49
    no shut
50
     exit
     int fa1/0
51
     ip address 192.168.45.4 255.255.255.0
52
53
    no shut
    exit
54
55
     exit
    sh ip int br
56
57
    config t
58
59
     #John
60
    config t
     int fa0/0
61
62
     ip address 192.168.35.5 255.255.255.0
63
     no shut
```

64

exit

```
65
     int fa1/0
66
     ip address 192.168.45.5 255.255.255.0
67
    no shut
    exit
68
    int fa2/0
69
70
     ip address 192.168.56.5 255.255.255.0
71
     no shut
72
    exit
73
    exit
    sh ip int br
74
75
     config t
76
    #Emma
77
78
    config t
     int fa0/0
79
80
     ip address 192.168.56.6 255.255.255.0
81
    no shut
    exit
82
    int loopback 0
83
84
    ip address 6.6.6.6 255.255.255.0
85
    exit
86
    exit
    sh ip int br
87
88
     config t
89
    #copy run start
90
91
     #copy running-config startup-config
92
94
```

```
95
     #Maria (->Jim)
 96
     router bgp 1
 97
     neighbor 192.168.12.2 remote-as 2
98
     exit
99
100
     #Jim (->Maria)
101
     router bgp 2
102
     neighbor 192.168.12.1 remote-as 1
103
     exit
104
     #John (->Emma)
105
106
     router bgp 2
     neighbor 192.168.56.6 remote-as 3
107
108
     exit
109
     #Emma(->John)
110
     router bgp 3
111
112
     neighbor 192.168.56.5 remote-as 2
113
     network 6.6.6.0 mask 255.255.255.0
114
     exit
115
     $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
116
117
     #John
     exit
118
119
     sh ip bgp
120
     sh ip bgp sum
121
     config t
     122
123
```

```
125
126 #Jim
127 router ospf 1
128 network 192.168.23.0 0.0.0.255 area 0
```

```
network 192.168.24.0 0.0.0.255 area 0
129
130
     exit
131
     #Jack
132
133
     router ospf 1
134
     network 192.168.23.0 0.0.0.255 area 0
     network 192.168.35.0 0.0.0.255 area 0
135
136
     exit
137
138
     #James
139
     router ospf 1
140
     network 192.168.24.0 0.0.0.255 area 0
141
     network 192.168.45.0 0.0.0.255 area 0
142
     exit
143
     #John
144
     router ospf 1
145
146
     network 192.168.35.0 0.0.0.255 area 0
     network 192.168.45.0 0.0.0.255 area 0
147
148
     exit
149
150
     151
     #Ping John & Jim
152
153
     #John (->Jim)
154
     exit
155
     ping 192.168.23.2
156
     ping 192.168.24.2
157
     config t
158
159
     #Jim (->John)
     exit
160
161
     ping 192.168.45.5
     ping 192.168.35.5
162
163
     config t
164
      165
167
     #Jim
168
     int loopback 0
169
170
     ip address 2.2.2.2 255.255.255.0
     router ospf 1
171
172
     network 2.2.2.0 0.0.0.0.255 area 0
     router bgp 2
173
174
     neighbor 5.5.5.5 remote-as 2
175
     neighbor 5.5.5.5 update-source loopback 0
176
     network 192.168.12.0 mask 255.255.255.0
177
     exit
178
     #John
179
180
     int loopback 0
181
     ip address 5.5.5.5 255.255.255.0
182
     router ospf 1
183
     network 5.5.5.0 0.0.0.0.255 area 0
184
     router bgp 2
185
     neighbor 2.2.2.2 remote-as 2
     neighbor 2.2.2.2 update-source loopback 0
186
     network 192.168.56.0 mask 255.255.255.0
187
```

188

189

190 191

192

exit

#Jim

exit

```
config t
197
     198
     *************
199
201
202
     #Jack
203
     router bgp 2
204
     int loopback 0
205
     ip address 3.3.3.3 255.255.255.0
206
     router ospf 1
     network 3.3.3.0 0.0.0.255 area 0
207
208
     router bgp 2
209
     neighbor 2.2.2.2 remote-as 2
210
     neighbor 2.2.2.2 update-source loopback 0
211
     exit
212
     #James
213
214
     router bgp 2
215
     int loopback 0
216
     ip address 4.4.4.4 255.255.255.0
217
     router ospf 1
218
     network 4.4.4.0 0.0.0.255 area 0
219
     router bgp 2
220
     neighbor 2.2.2.2 remote-as 2
221
     neighbor 2.2.2.2 update-source loopback 0
222
     exit
223
224
     #Jim
225
     router bgp 2
226
     neighbor 3.3.3.3 remote-as 2
227
     neighbor 3.3.3.3 update-source loopback 0
228
     neighbor 4.4.4.4 remote-as 2
229
     neighbor 4.4.4.4 update-source loopback 0
230
231
     $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
232
     #James
233
234
     exit
235
     sh ip bgp
236
     config t
237
     #Jack
238
239
     exit
240
     sh ip bgp
     config t
241
     242
     *************
243
245
```

193

194

195

196

sh ip bgp

#sh ip bgp sum

#traceroute 6.6.6.6

#sh ip ro bgp

```
246
      #John (->Jack & James)
247
      router bgp 2
248
      neighbor 3.3.3.3 remote-as 2
249
      neighbor 3.3.3.3 update-source loopback 0
250
      neighbor 4.4.4.4 remote-as 2
251
      neighbor 4.4.4.4 update-source loopback 0
252
      exit
253
      #James (->Jack & John)
254
255
      router bgp 2
256
      neighbor 3.3.3.3 remote-as 2
```

```
257
     neighbor 3.3.3.3 update-source loopback 0
258
     neighbor 5.5.5.5 remote-as 2
259
     neighbor 5.5.5.5 update-source loopback 0
260
261
262
     #Jack (->James & John)
     router bgp 2
263
264
     neighbor 4.4.4.4 remote-as 2
265
     neighbor 4.4.4.4 update-source loopback 0
266
     neighbor 5.5.5.5 remote-as 2
267
     neighbor 5.5.5.5 update-source loopback 0
     exit
268
269
270
     #John
271
     router bgp 2
272
     no network 192.168.56.0
273
     neighbor 3.3.3.3 next-hop-self
     neighbor 4.4.4.4 next-hop-self
274
275
     network 192.168.56.0 mask 255.255.255.0
276
     exit
277
278
     279
     #Jack
     exit
280
281
     sh ip bgp
282
     sh ip ro bgp | include 6.6.6.0
283
     config t
284
     #James
285
286
     exit
287
     sh ip bgp
288
     sh ip ro bgp | include 6.6.6.0
     config t
289
290
     291
```

```
293
294
     #Maria (->Jim)
295
     router ospf 1
296
     network 192.168.12.0 0.0.0.255 area 0
297
     exit
298
     exit
299
     #Jim (->Maria)
300
     router ospf 1
301
302
     network 192.168.12.0 0.0.0.255 area 0
303
     exit
304
     exit
305
     #Emma (->John)
306
307
     router ospf 1
308
     network 192.168.56.0 0.0.0.255 area 0
309
     exit
310
     exit
311
     #John (->Emma)
312
313
     router ospf 1
314
     network 192.168.56.0 0.0.0.255 area 0
     exit
315
316
     exit
317
     *************
318
```

```
321
      #Maria
322
      ping 192.168.12.1
323
      ping 192.168.12.2
324
      ping 192.168.23.2
325
      ping 192.168.23.3
326
      ping 192.168.24.2
327
      ping 192.168.24.4
      ping 192.168.35.3
328
329
      ping 192.168.35.5
330
      ping 192.168.45.4
      ping 192.168.45.5
331
332
      ping 192.168.56.5
333
      ping 192.168.56.6
      ping 2.2.2.2
334
335
      ping 3.3.3.3
336
      ping 4.4.4.4
337
      ping 5.5.5.5
338
      ping 6.6.6.6
339
340
      #Jim
341
      ping 192.168.12.1
342
      ping 192.168.12.2
343
      ping 192.168.23.2
344
      ping 192.168.23.3
345
      ping 192.168.24.2
346
      ping 192.168.24.4
347
      ping 192.168.35.3
348
      ping 192.168.35.5
349
      ping 192.168.45.4
350
      ping 192.168.45.5
351
      ping 192.168.56.5
      ping 192.168.56.6
352
353
      ping 2.2.2.2
354
      ping 3.3.3.3
355
      ping 4.4.4.4
      ping 5.5.5.5
356
357
      ping 6.6.6.6
358
359
      #Jack
      ping 192.168.12.1
360
361
      ping 192.168.12.2
362
      ping 192.168.23.2
363
      ping 192.168.23.3
364
      ping 192.168.24.2
365
      ping 192.168.24.4
366
      ping 192.168.35.3
367
      ping 192.168.35.5
368
      ping 192.168.45.4
369
      ping 192.168.45.5
370
      ping 192.168.56.5
371
      ping 192.168.56.6
372
      ping 2.2.2.2
373
      ping 3.3.3.3
374
      ping 4.4.4.4
375
      ping 5.5.5.5
376
      ping 6.6.6.6
377
378
      #John
379
      ping 192.168.12.1
      ping 192.168.12.2
380
381
      ping 192.168.23.2
382
      ping 192.168.23.3
383
      ping 192.168.24.2
384
      ping 192.168.24.4
```

```
ping 192.168.<u>35.3</u>
385
386
      ping 192.168.35.5
387
      ping 192.168.45.4
      ping 192.168.45.5
388
      ping 192.168.56.5
389
390
      ping 192.168.56.6
      ping 2.2.2.2
391
      ping 3.3.3.3
392
393
      ping 4.4.4.4
394
      ping 5.5.5.5
395
      ping 6.6.6.6
396
397
      #James
398
      ping 192.168.12.1
      ping 192.168.12.2
399
400
      ping 192.168.23.2
401
      ping 192.168.23.3
402
      ping 192.168.24.2
      ping 192.168.24.4
403
404
      ping 192.168.35.3
405
      ping 192.168.35.5
406
      ping 192.168.45.4
407
      ping 192.168.45.5
      ping 192.168.56.5
408
409
      ping 192.168.56.6
410
      ping 2.2.2.2
      ping 3.3.3.3
411
412
      ping 4.4.4.4
413
      ping 5.5.5.5
414
      ping 6.6.6.6
415
416
      #Emma
417
      ping 192.168.12.1
418
      ping 192.168.12.2
419
      ping 192.168.23.2
420
      ping 192.168.23.3
421
      ping 192.168.24.2
422
      ping 192.168.24.4
423
      ping 192.168.35.3
424
      ping 192.168.35.5
      ping 192.168.45.4
425
426
      ping 192.168.45.5
427
      ping 192.168.56.5
428
      ping 192.168.56.6
429
      ping 2.2.2.2
430
      ping 3.3.3.3
431
      ping 4.4.4.4
432
      ping 5.5.5.5
433
      ping 6.6.6.6
434
435
```