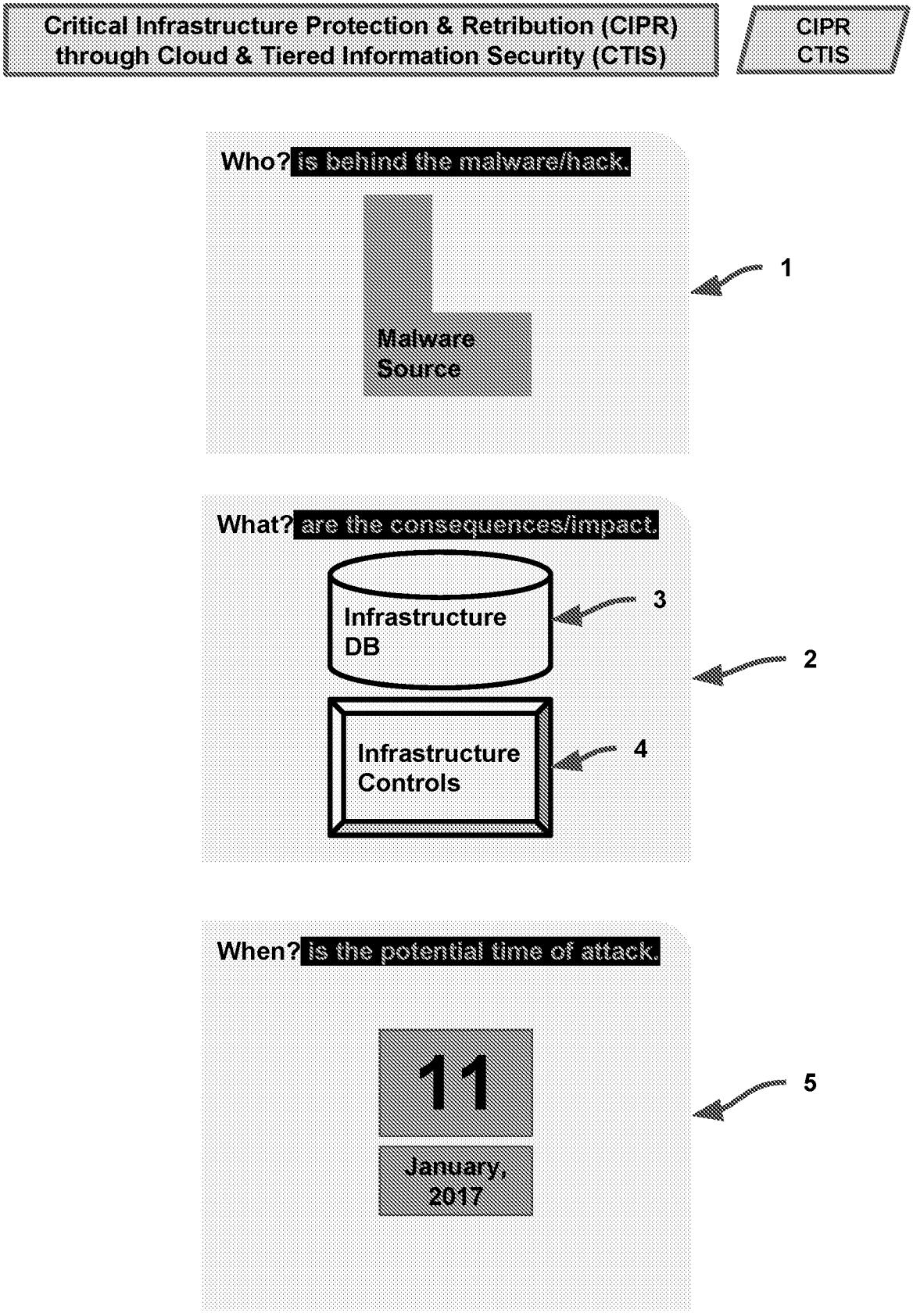

Critical Infrastructure Protection & Retribution (CIPR) through Cloud & Tiered Information Security (CTIS)
CIPR CTIS
Who? is behind the malware/hack.
Malware Source
1
What? are the consequences/impact.
Infrastructure DB
3
2
Infrastructure Controls
4
When? is the potential time of attack.
11
January, 2017
5

FIG. 1

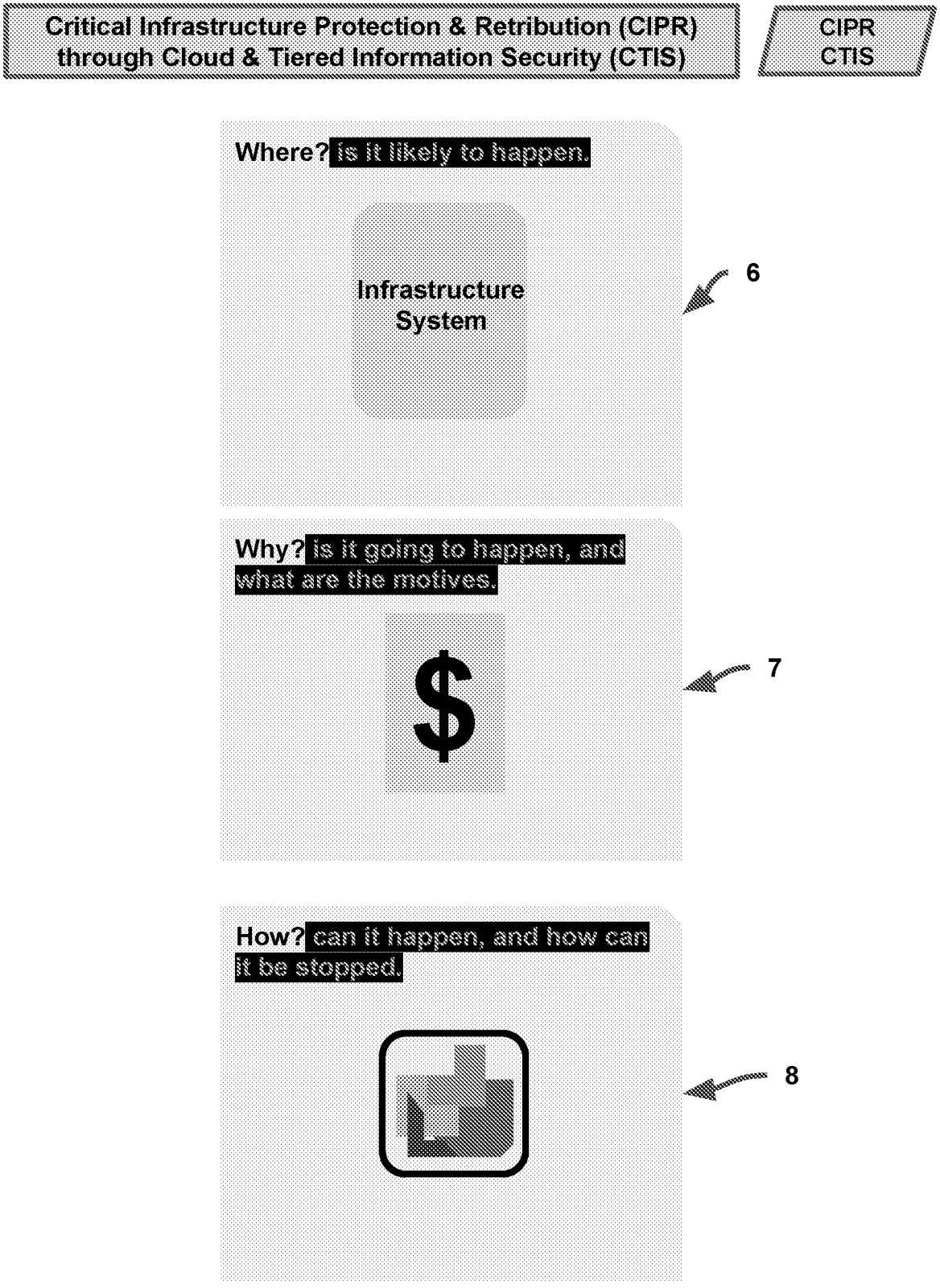

Critical Infrastructure Protection & Retribution (CIPR) through Cloud & Tiered Information Security (CTIS)
CIPR CTIS
Where? is it likely to happen.
Infrastructure System
6
Why? is it going to happen, and what are the motives.
$
7
How? can it happen, and how can it be stopped.
8

FIG. 2

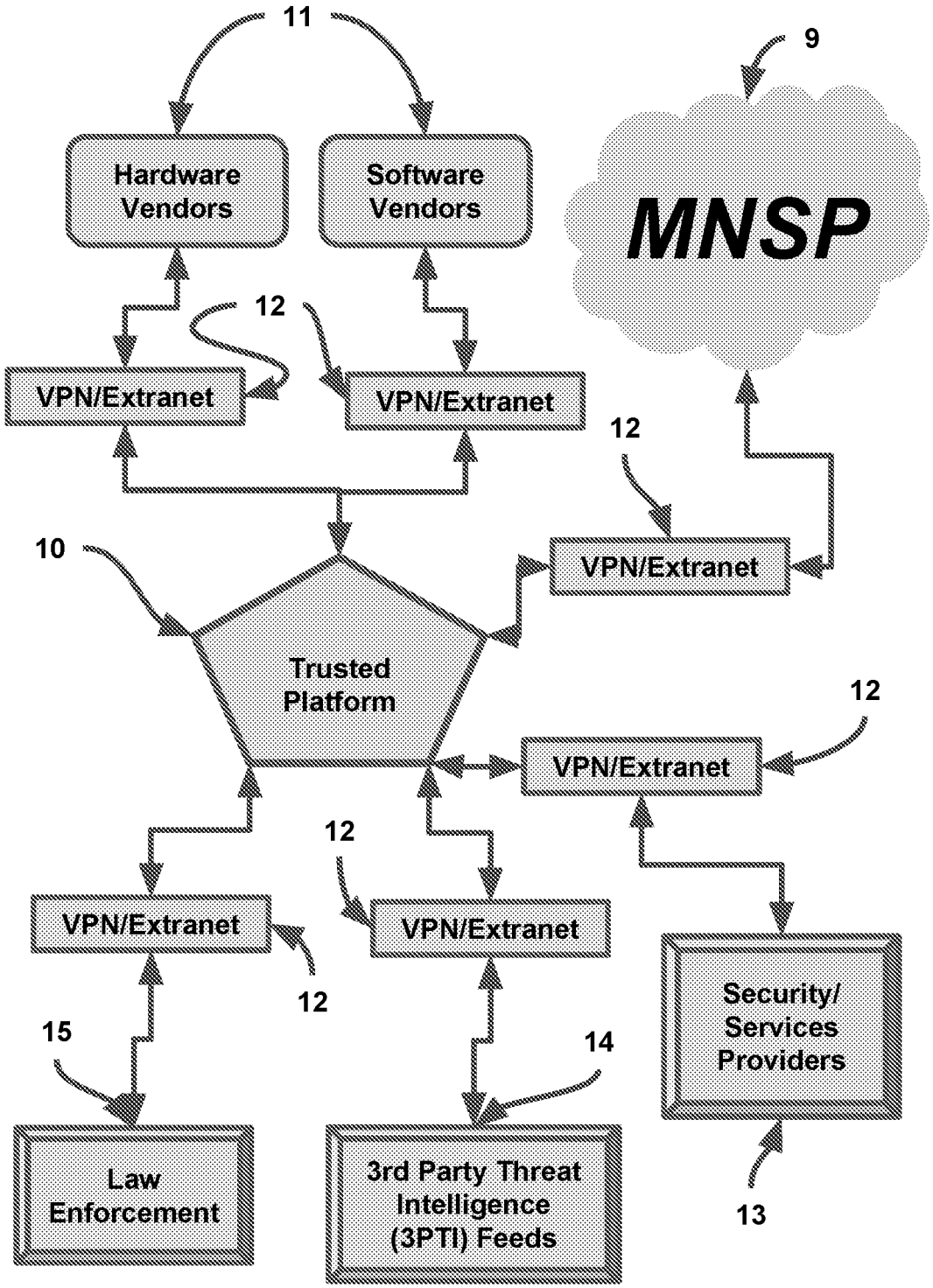

11
9
Hardware Vendors
Software Vendors
MNSP
12
VPN/Extranet
VPN/Extranet
12
10
VPN/Extranet
Trusted Platform
12
VPN/Extranet
12
VPN/Extranet
VPN/Extranet
12
Security/ Services Providers
15
14
Law Enforcement
3rd Party Threat Intelligence (3PTI) Feeds
13

FIG. 3

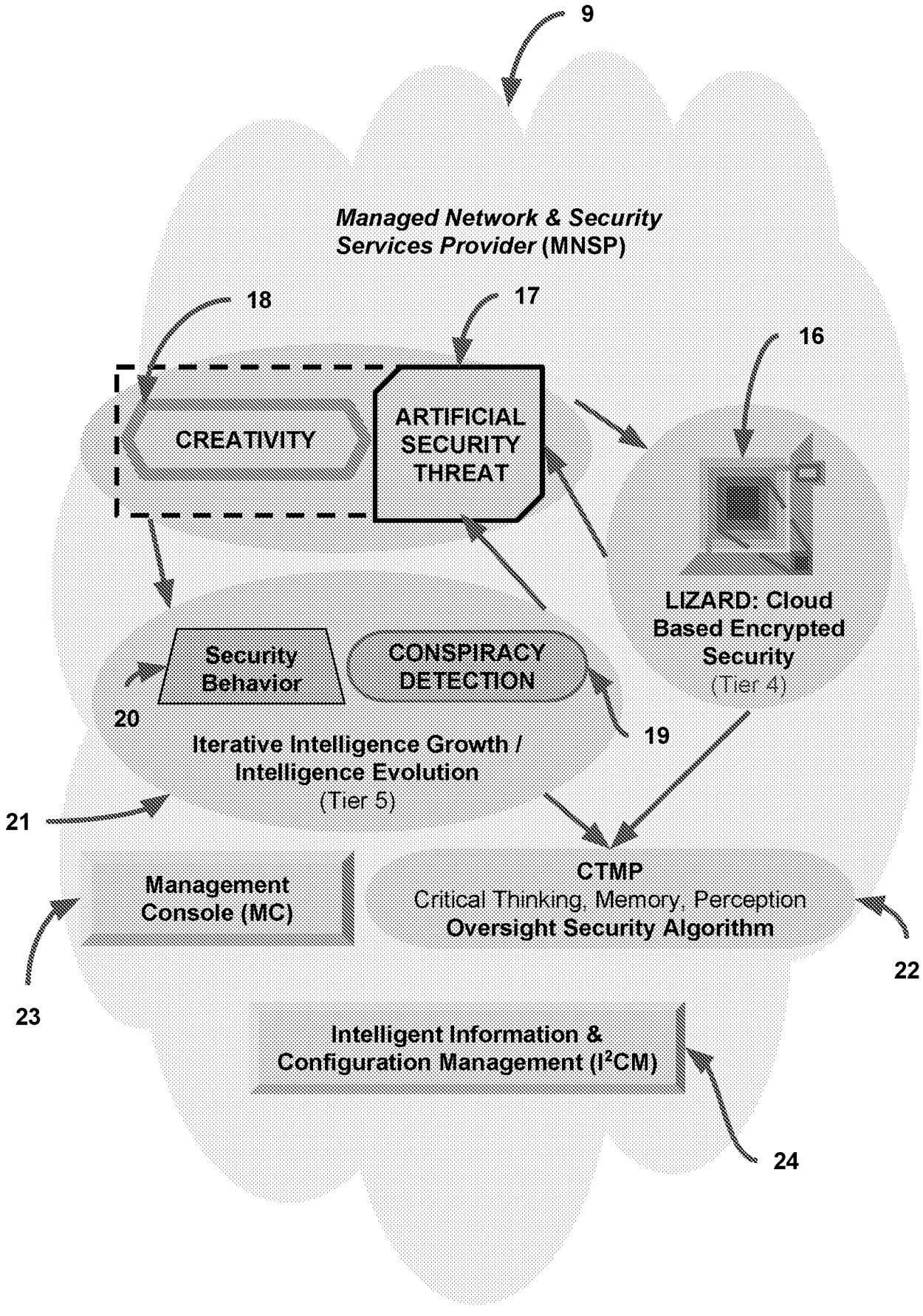

9
Managed Network & Security Services Provider (MNSP)
18
17
16
CREATIVITY
ARTIFICIAL SECURITY THREAT
LIZARD: Cloud Based Encrypted Security
(Tier 4)
Security Behavior
CONSPIRACY DETECTION
20
19
Iterative Intelligence Growth / Intelligence Evolution
(Tier 5)
21
Management Console (MC)
CTMP
Critical Thinking, Memory, Perception
Oversight Security Algorithm
22
23
Intelligent Information & Configuration Management (I²CM)
24

FIG. 4

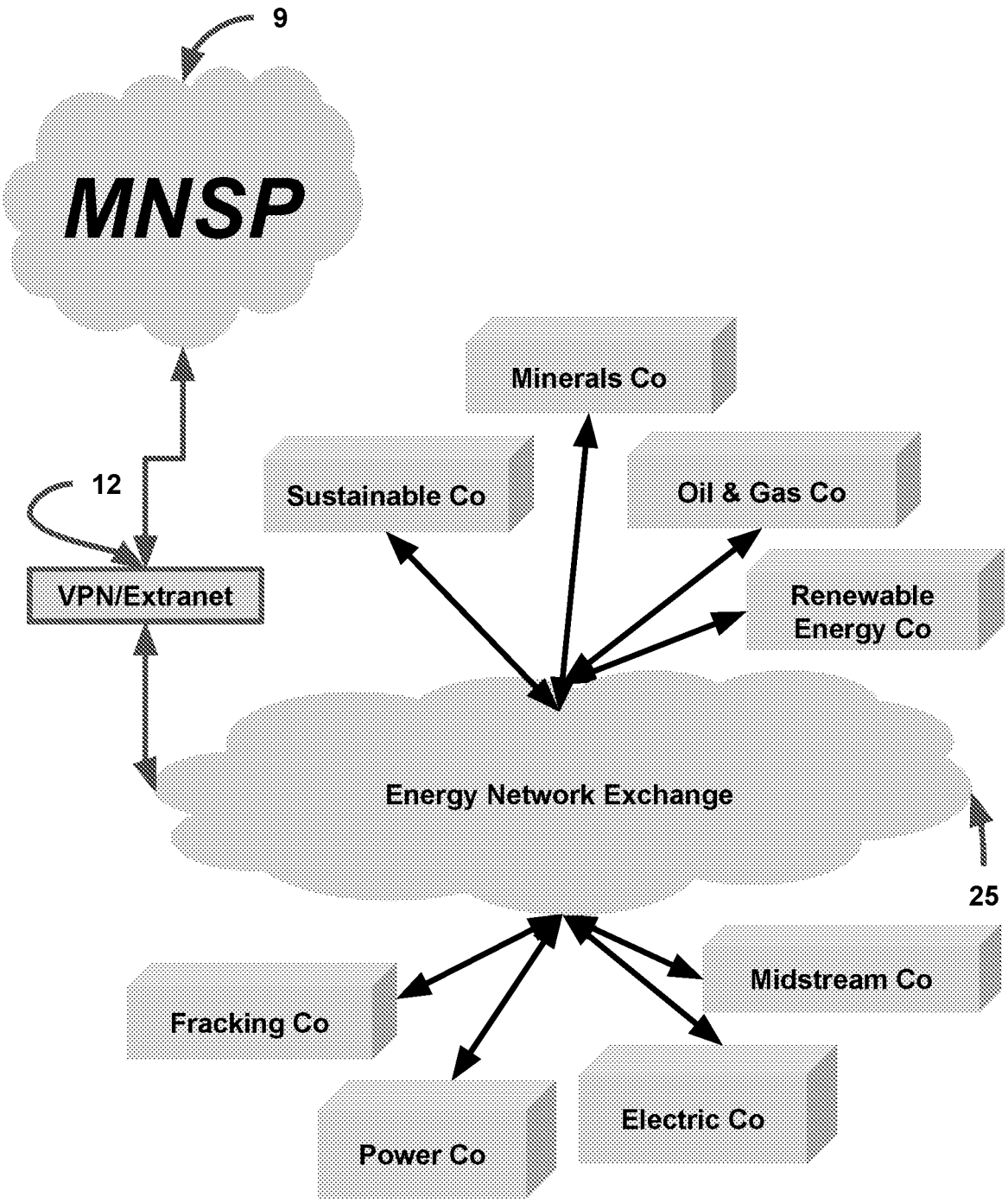

9
MNSP
12
VPN/Extranet
Minerals Co
Sustainable Co
Oil & Gas Co
Renewable Energy Co
Energy Network Exchange
25
Fracking Co
Midstream Co
Power Co
Electric Co

FIG. 5

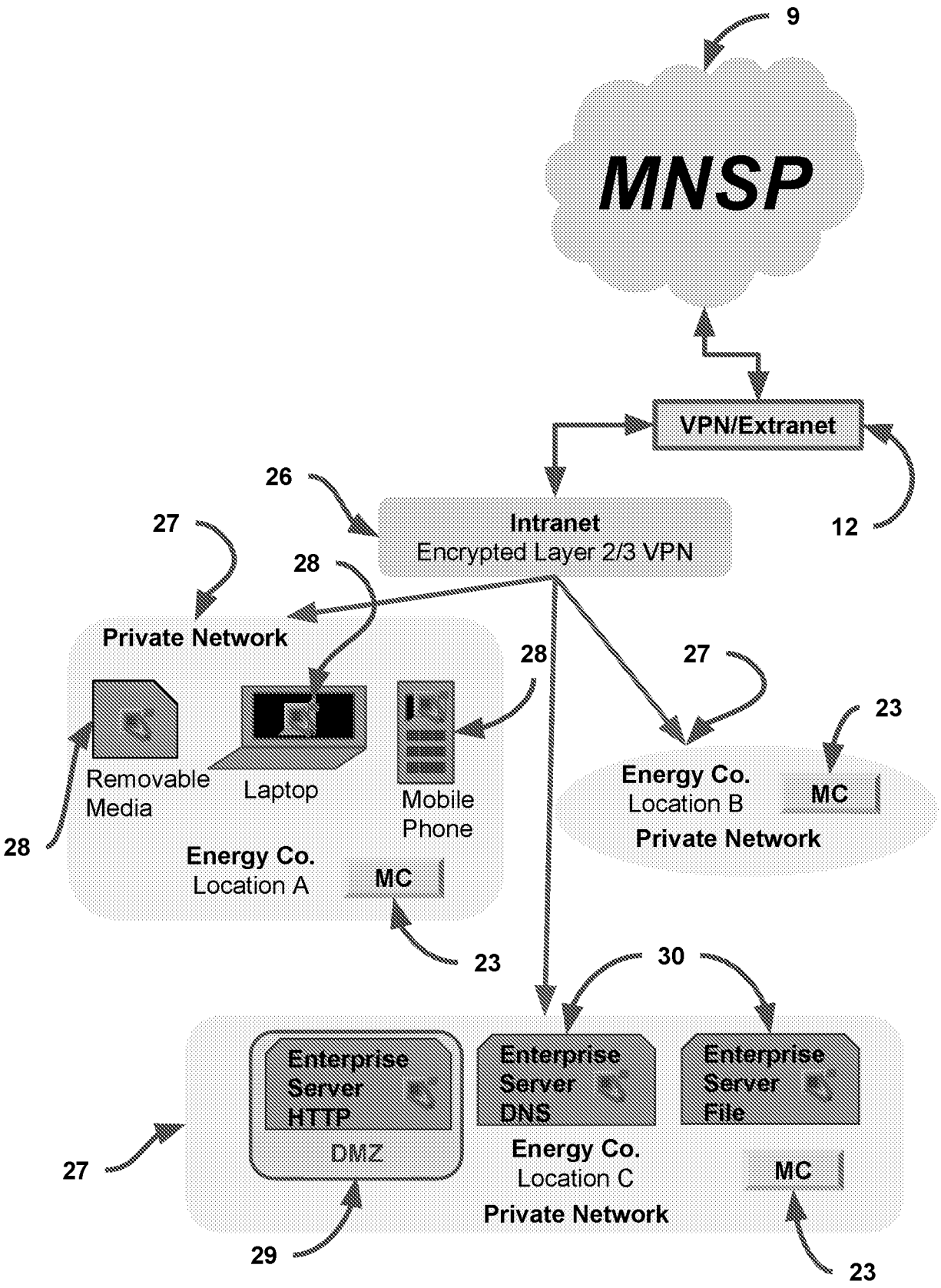

9
MNSP
VPN/Extranet
26
Intranet
Encrypted Layer 2/3 VPN
12
27
28
Private Network
28
27
23
Removable Media
Laptop
Mobile Phone
28
Energy Co.
Location B
MC
Private Network
Energy Co.
Location A
MC
23
30
Enterprise Server HTTP
DMZ
Enterprise Server DNS
Enterprise Server File
27
Energy Co.
Location C
MC
Private Network
29
23

FIG. 6

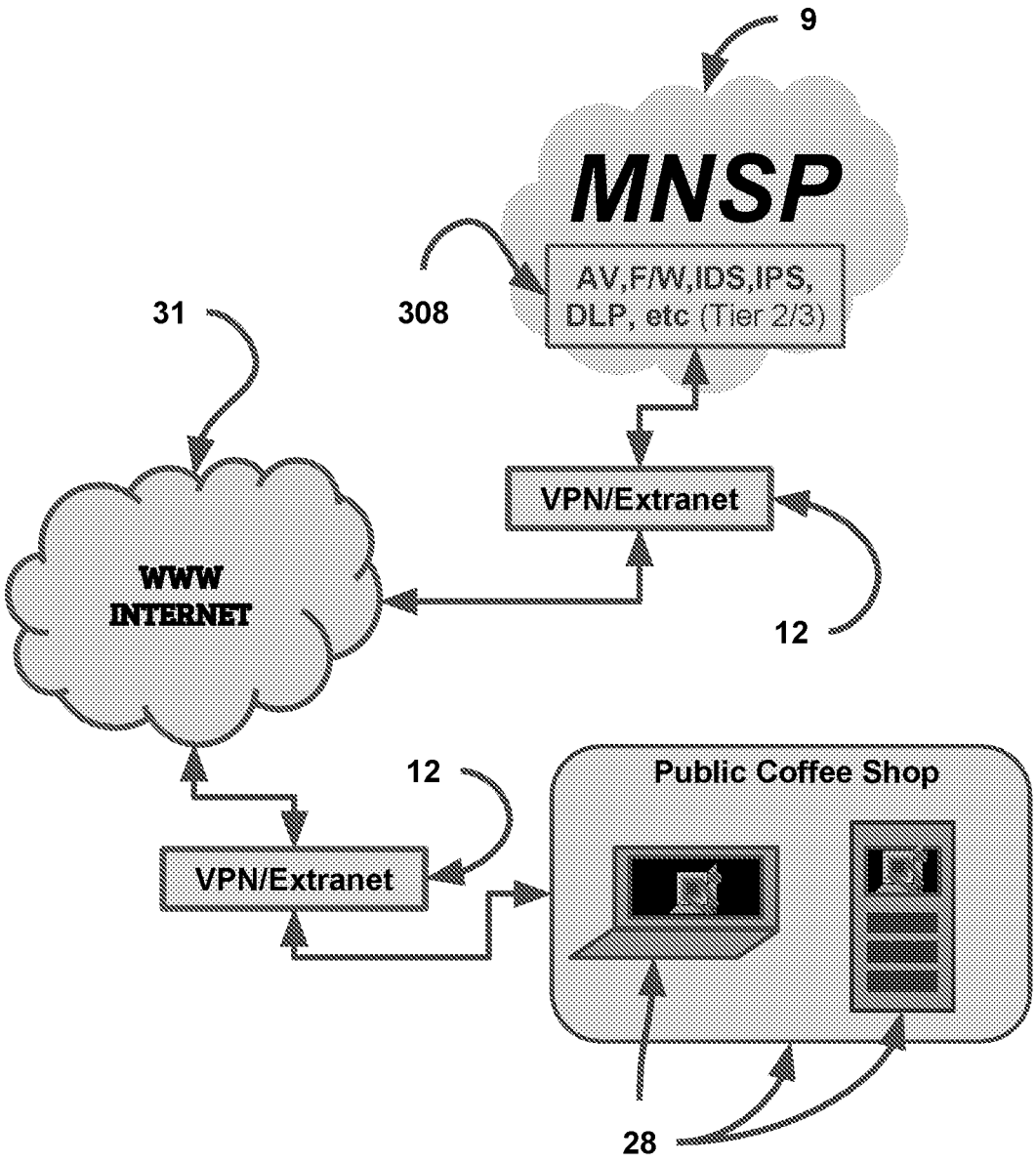

9
MNSP
AV,F/W,IDS,IPS,
DLP, etc (Tier 2/3)
308
31
VPN/Extranet
WWW
INTERNET
12
12
Public Coffee Shop
VPN/Extranet
28

FIG. 7

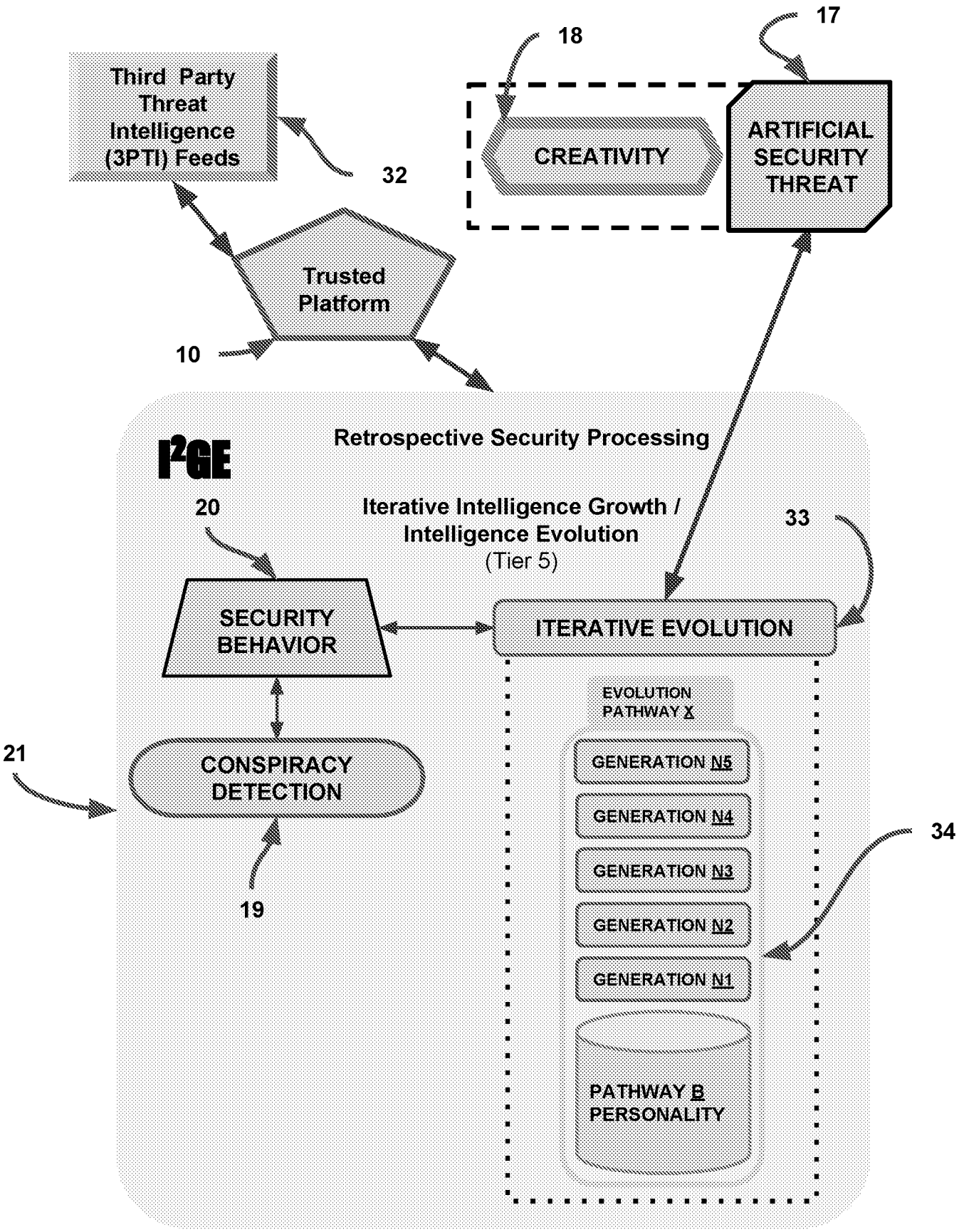

Third Party Threat Intelligence (3PTI) Feeds
32
18
17
CREATIVITY
ARTIFICIAL SECURITY THREAT
Trusted Platform
10
I²GE
Retrospective Security Processing
20
Iterative Intelligence Growth / Intelligence Evolution
(Tier 5)
33
SECURITY BEHAVIOR
ITERATIVE EVOLUTION
EVOLUTION PATHWAY X
21
CONSPIRACY DETECTION
GENERATION N5
GENERATION N4
GENERATION N3
GENERATION N2
GENERATION N1
34
19
PATHWAY B PERSONALITY

FIG. 8

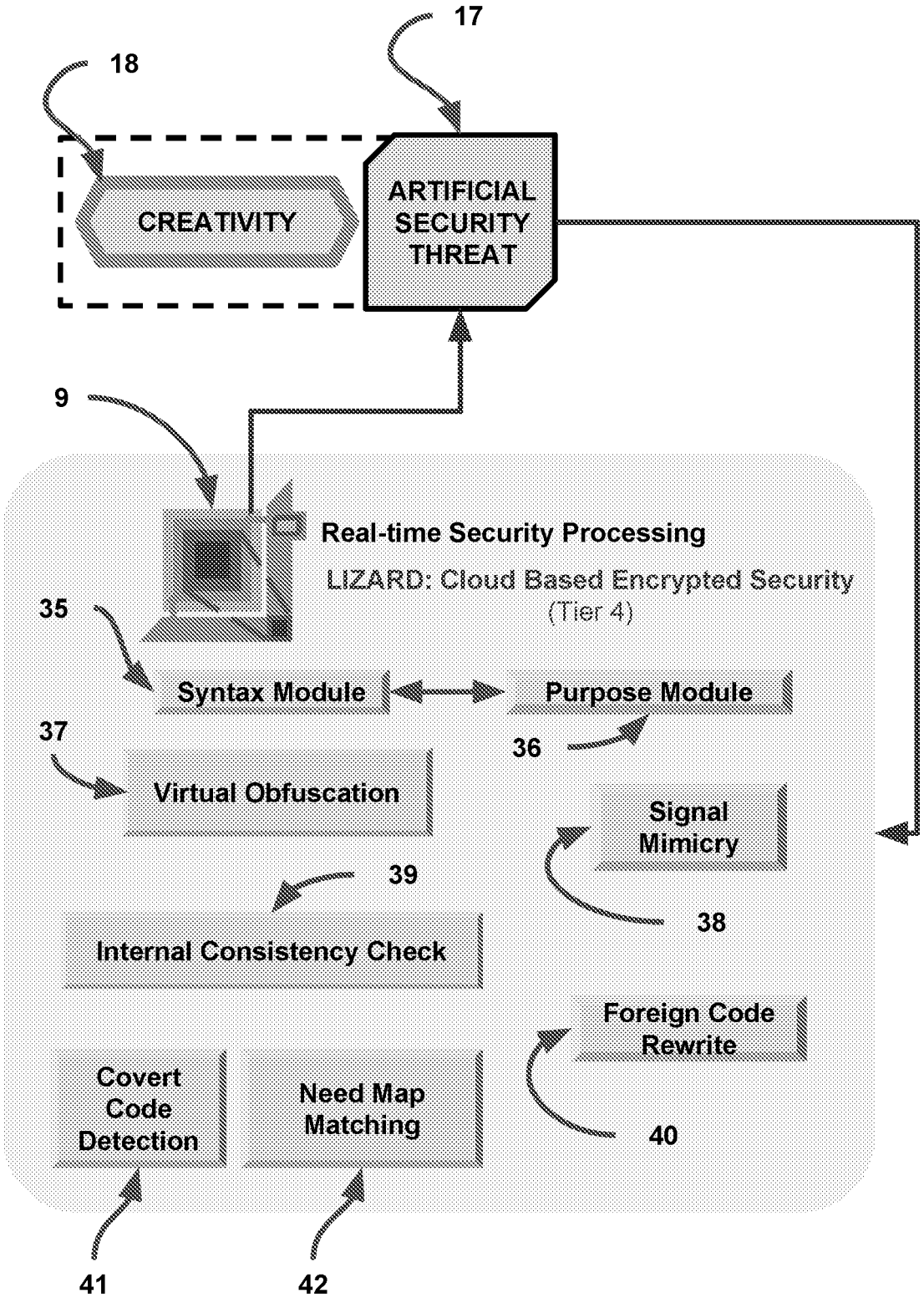

17
18
CREATIVITY
ARTIFICIAL SECURITY THREAT
9
Real-time Security Processing
LIZARD: Cloud Based Encrypted Security
(Tier 4)
35
Syntax Module
Purpose Module
37
36
Virtual Obfuscation
Signal Mimicry
39
38
Internal Consistency Check
Foreign Code Rewrite
Covert Code Detection
Need Map Matching
40
41
42

FIG. 9

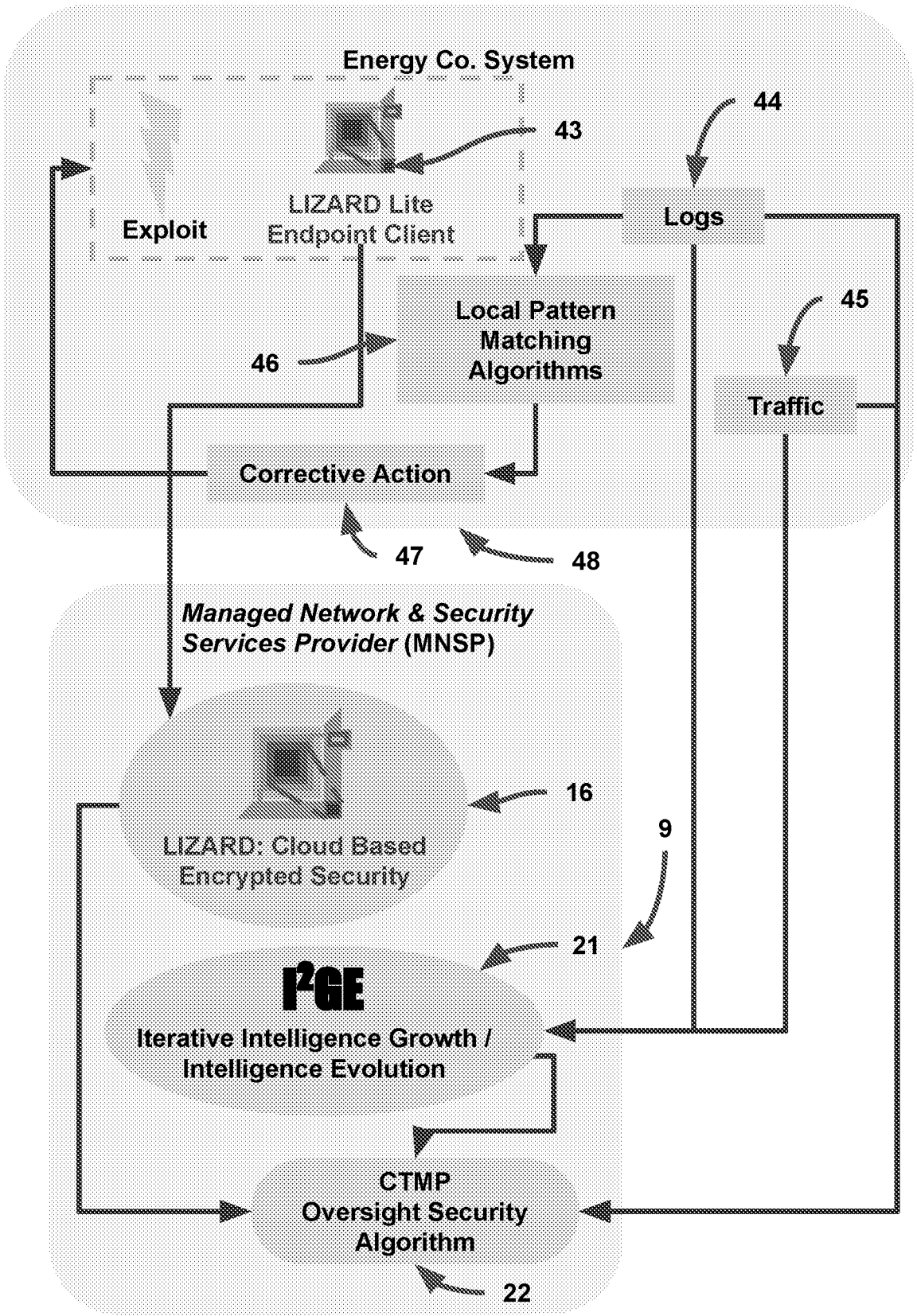

Energy Co. System
43
44
LIZARD Lite
Endpoint Client
Exploit
Logs
Local Pattern
Matching
Algorithms
46
45
Traffic
Corrective Action
47
48
Managed Network & Security
Services Provider (MNSP)
16
LIZARD: Cloud Based
Encrypted Security
9
21
I²GE
Iterative Intelligence Growth /
Intelligence Evolution
CTMP
Oversight Security
Algorithm
22

FIG. 10

Stage 1: Initial System Intrusion

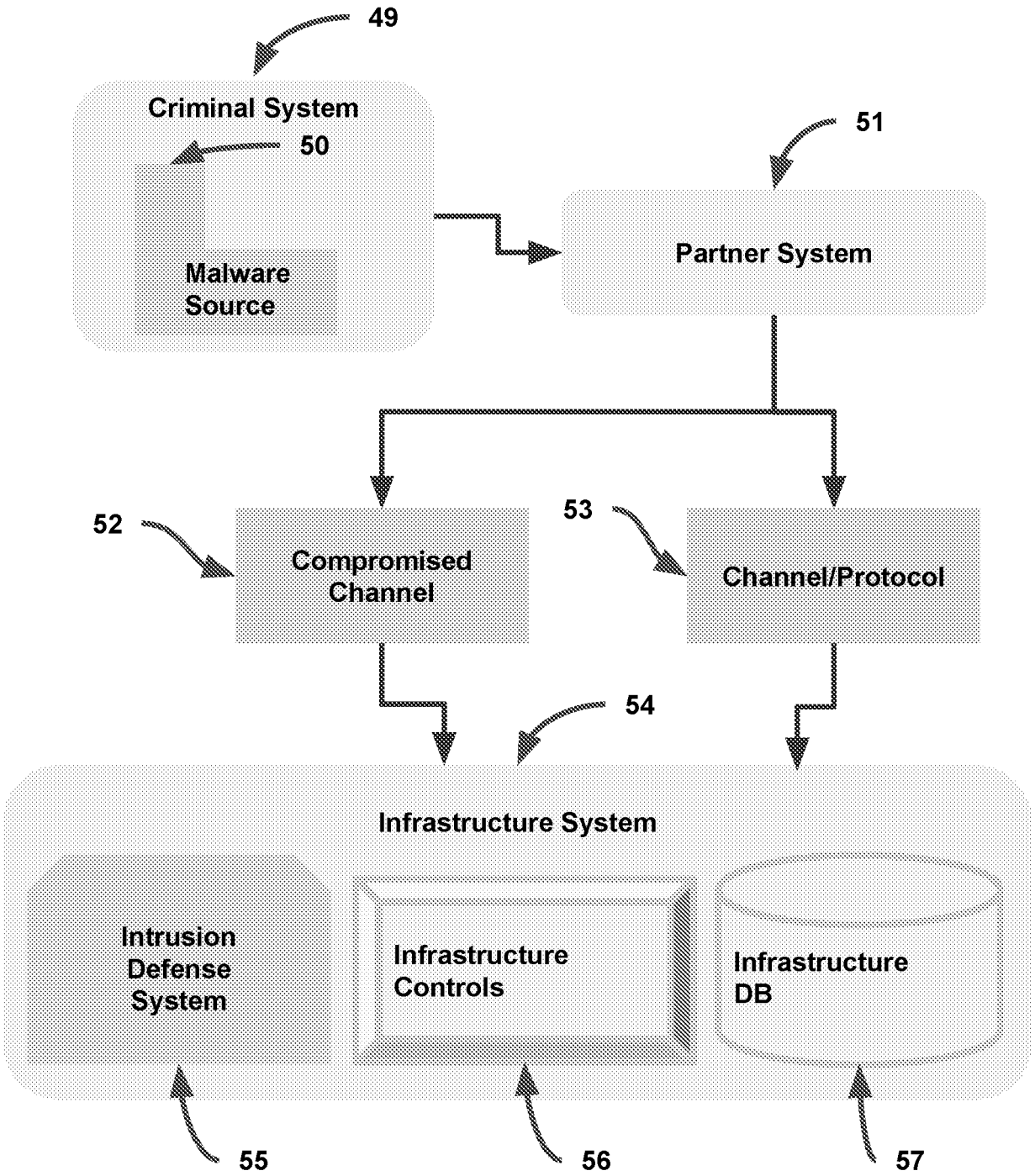


FIG. 11

Stage 2: Deployment of Initial Trojan Horse

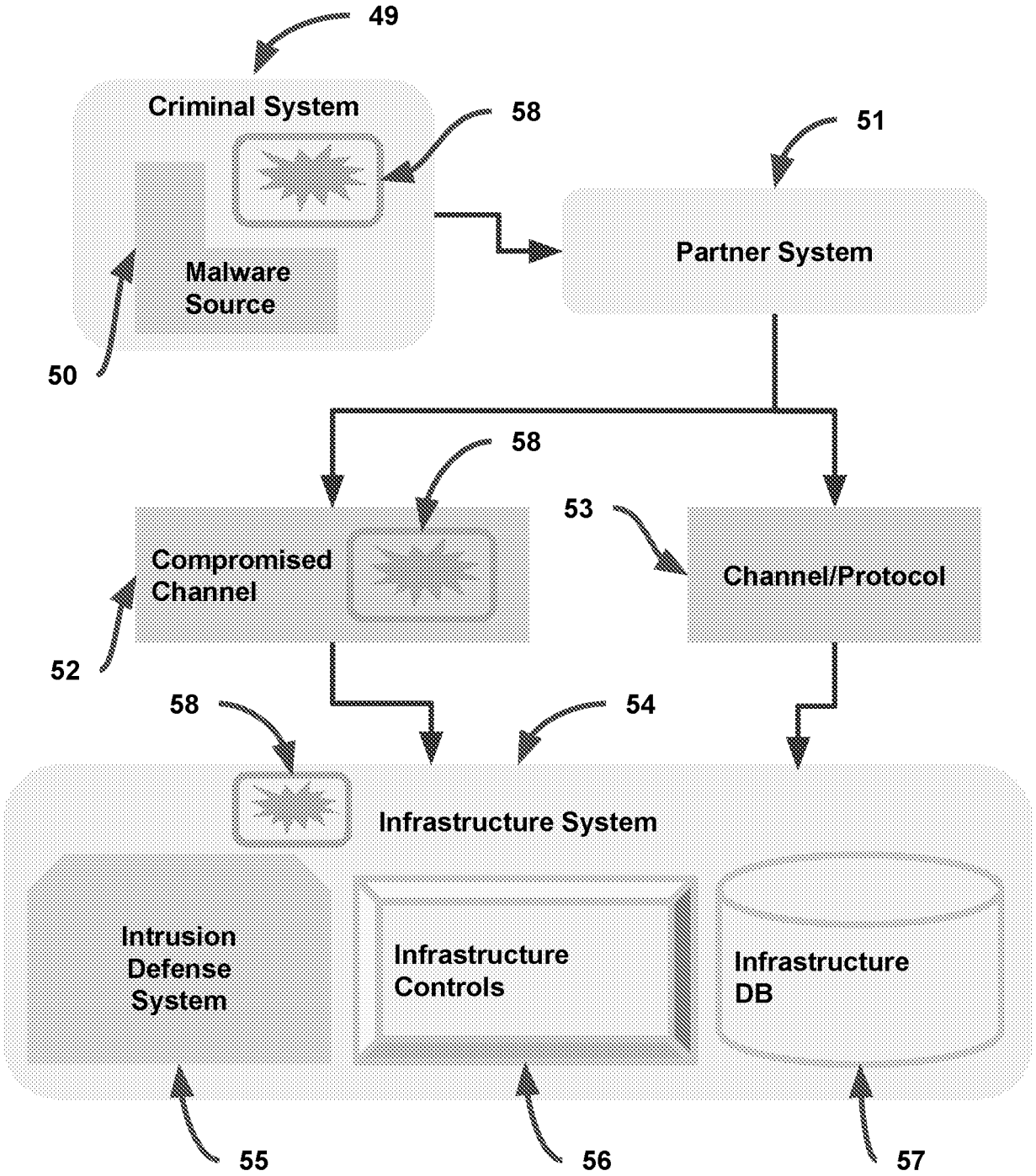


FIG. 12

Stage 3: Download of Advanced Executable Malware

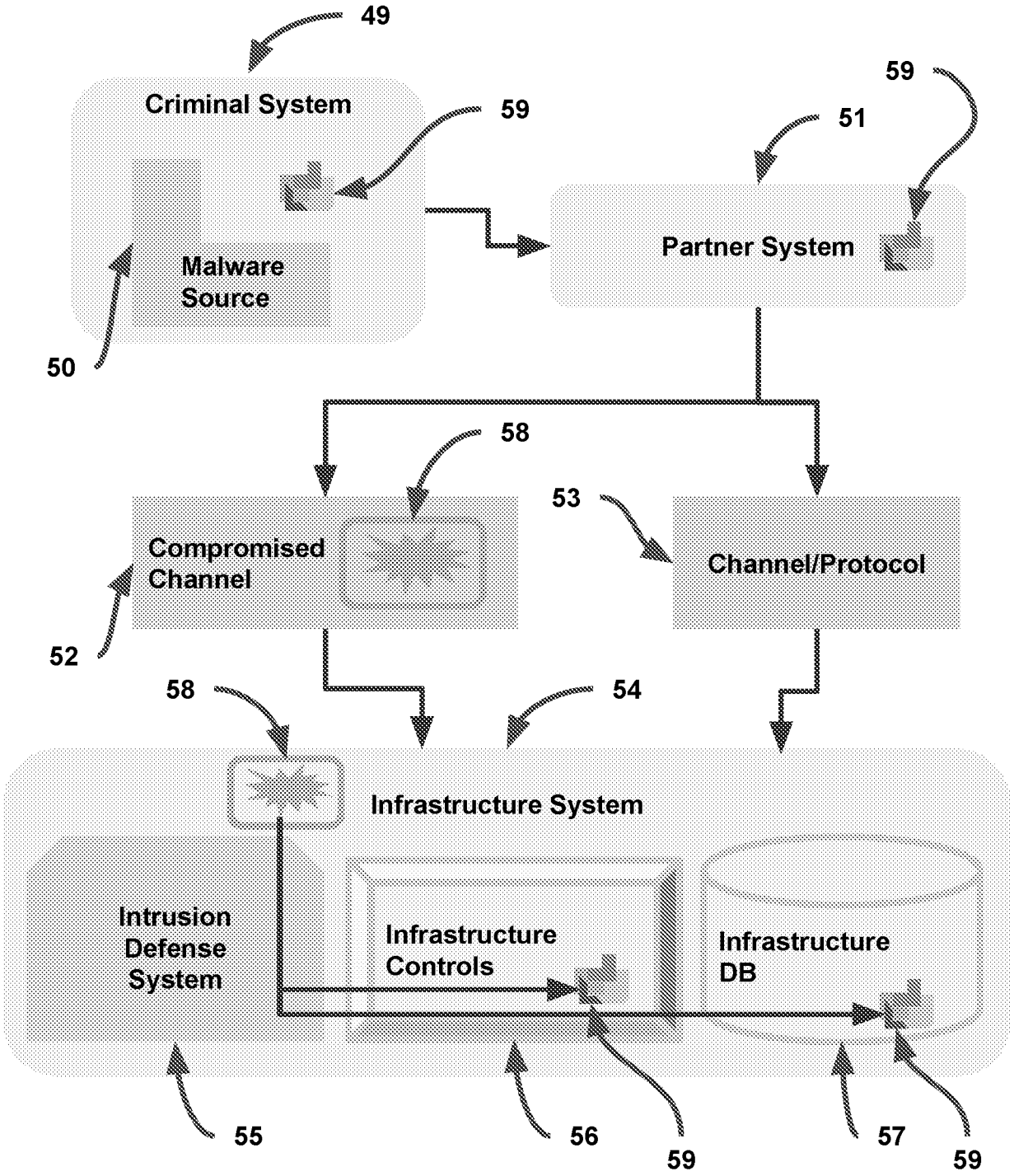


FIG. 13

Stage 4: Compromise of Intrusion Defense/Prevention Systems

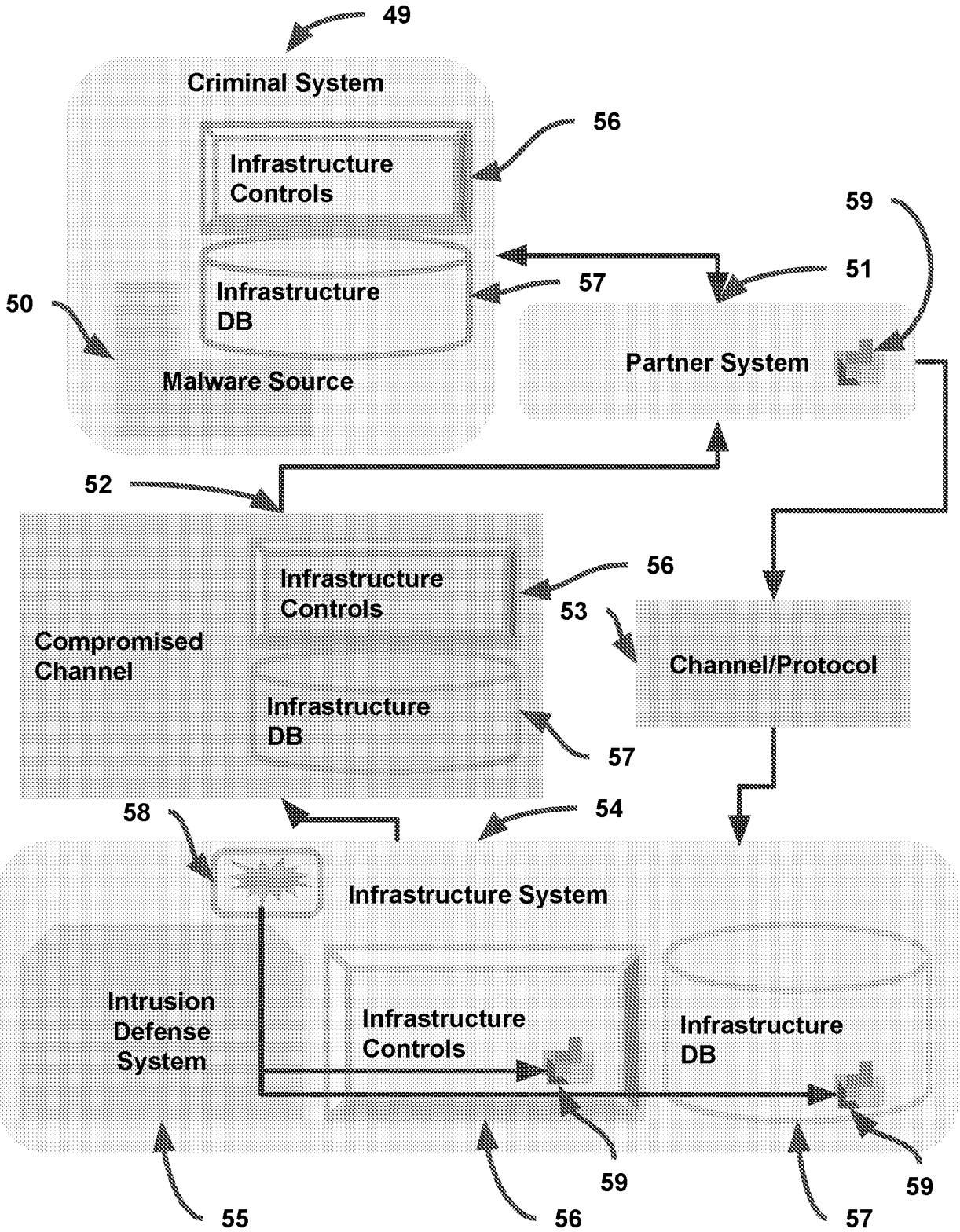


FIG. 14

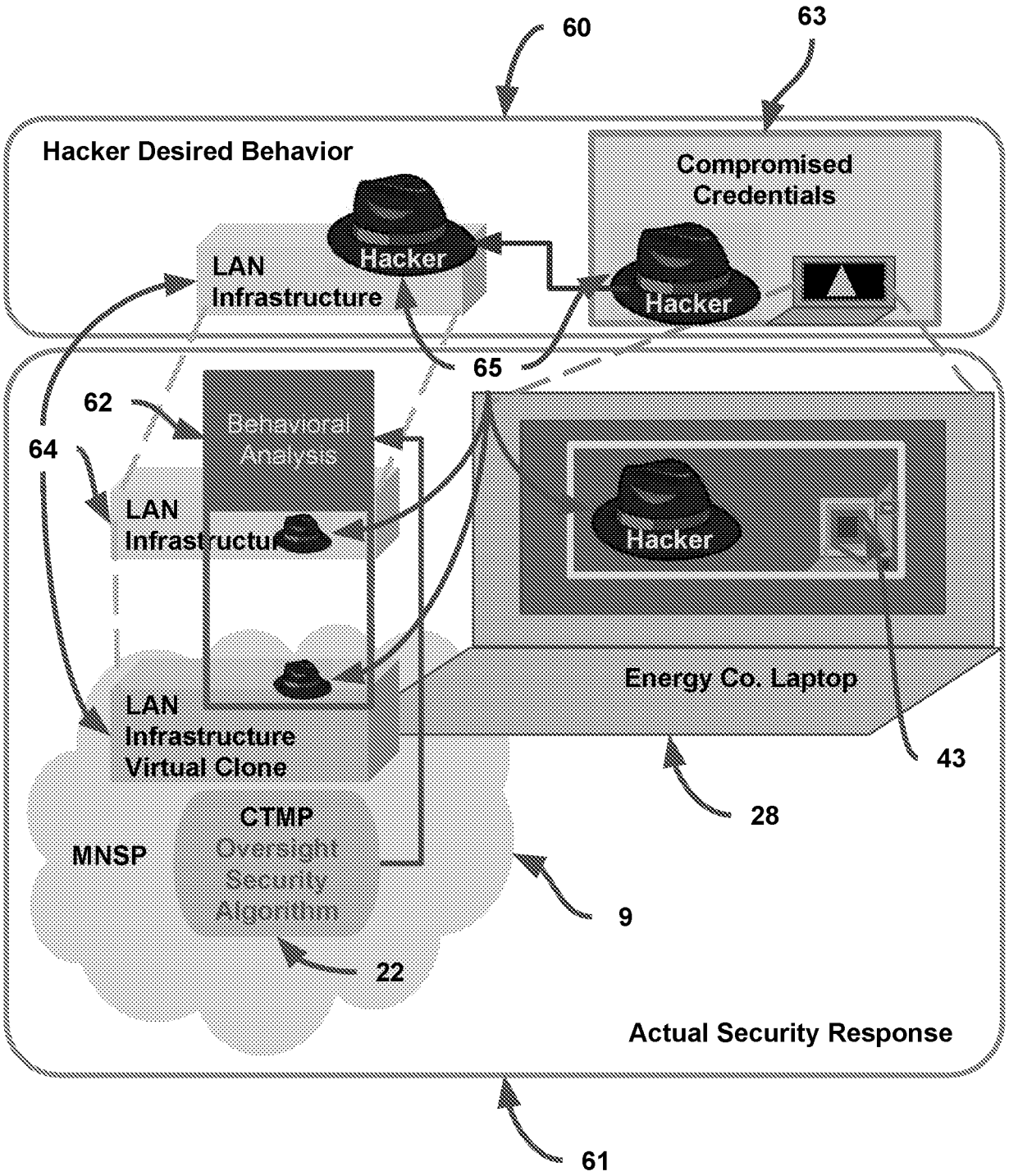

60
63
Hacker Desired Behavior
Compromised Credentials
Hacker
LAN Infrastructure
Hacker
65
62
64
Behavioral Analysis
LAN Infrastructure
Hacker
Energy Co. Laptop
LAN Infrastructure Virtual Clone
43
28
CTMP
Oversight
Security
Algorithm
MNSP
9
22
Actual Security Response
61

FIG. 15

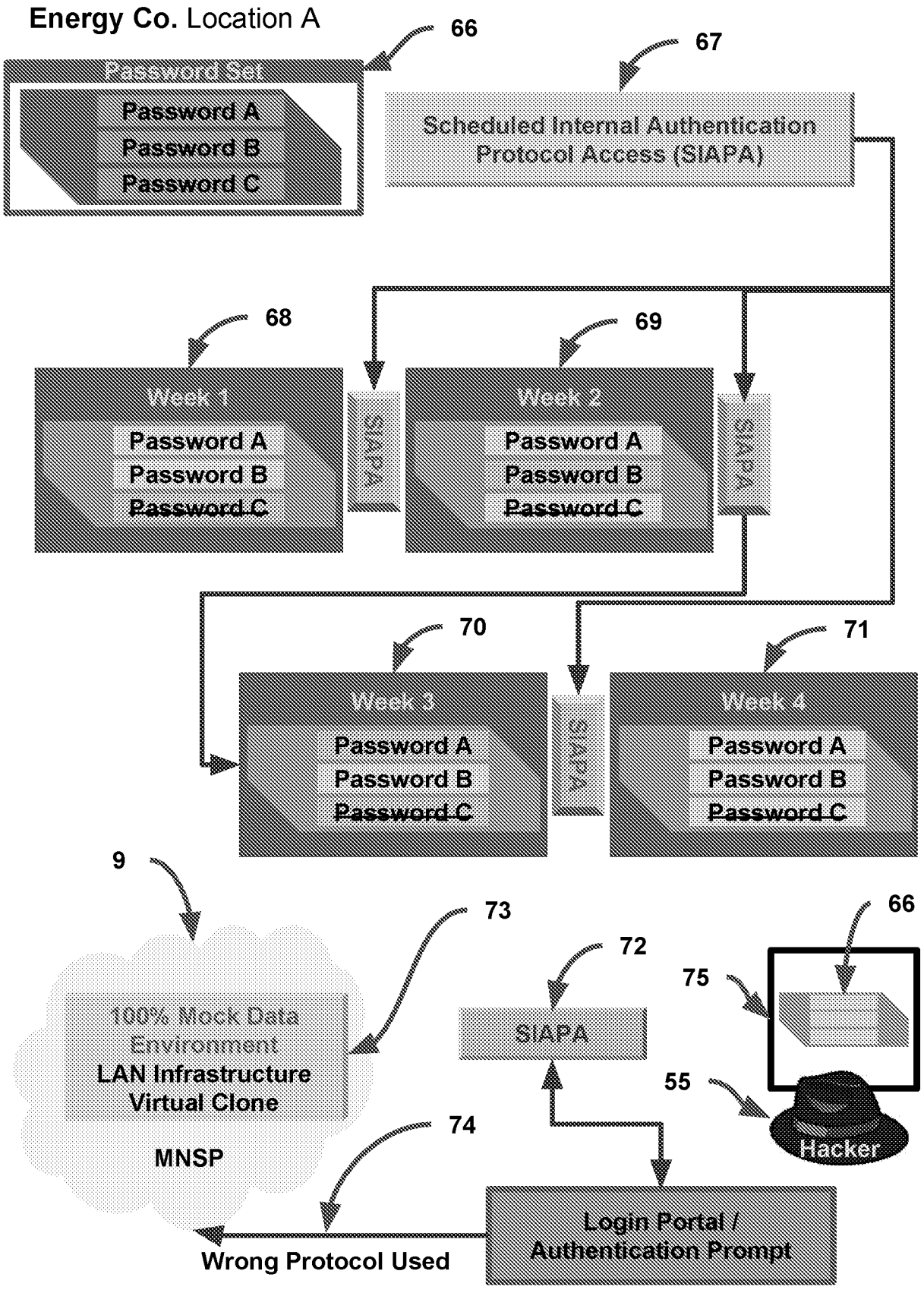

Energy Co. Location A
66
67
Password Set
Password A
Password B
Password C
Scheduled Internal Authentication Protocol Access (SIAPA)
68
69
Week 1
Password A
Password B
Password C
SIAPA
Week 2
Password A
Password B
Password C
SIAPA
70
71
Week 3
Password A
Password B
Password C
SIAPA
Week 4
Password A
Password B
Password C
9
73
72
66
75
100% Mock Data Environment
LAN Infrastructure Virtual Clone
MNSP
SIAPA
55
Hacker
74
Login Portal / Authentication Prompt
Wrong Protocol Used

FIG. 16

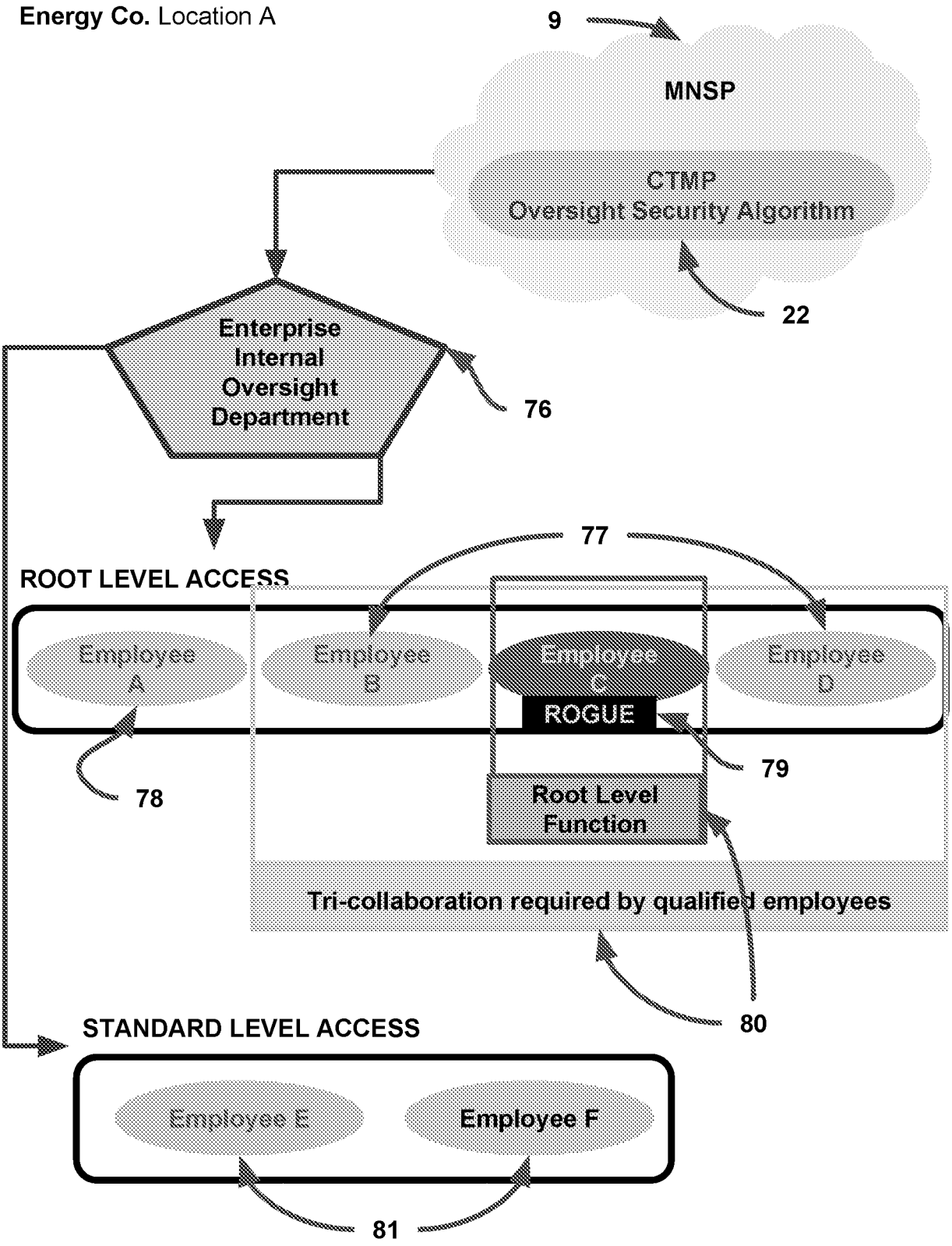

Energy Co. Location A
9
MNSP
CTMP
Oversight Security Algorithm
22
Enterprise
Internal
Oversight
Department
76
77
ROOT LEVEL ACCESS
Employee A
Employee B
Employee C
ROGUE
Employee D
78
79
Root Level Function
Tri-collaboration required by qualified employees
80
STANDARD LEVEL ACCESS
Employee E
Employee F
81

FIG. 17

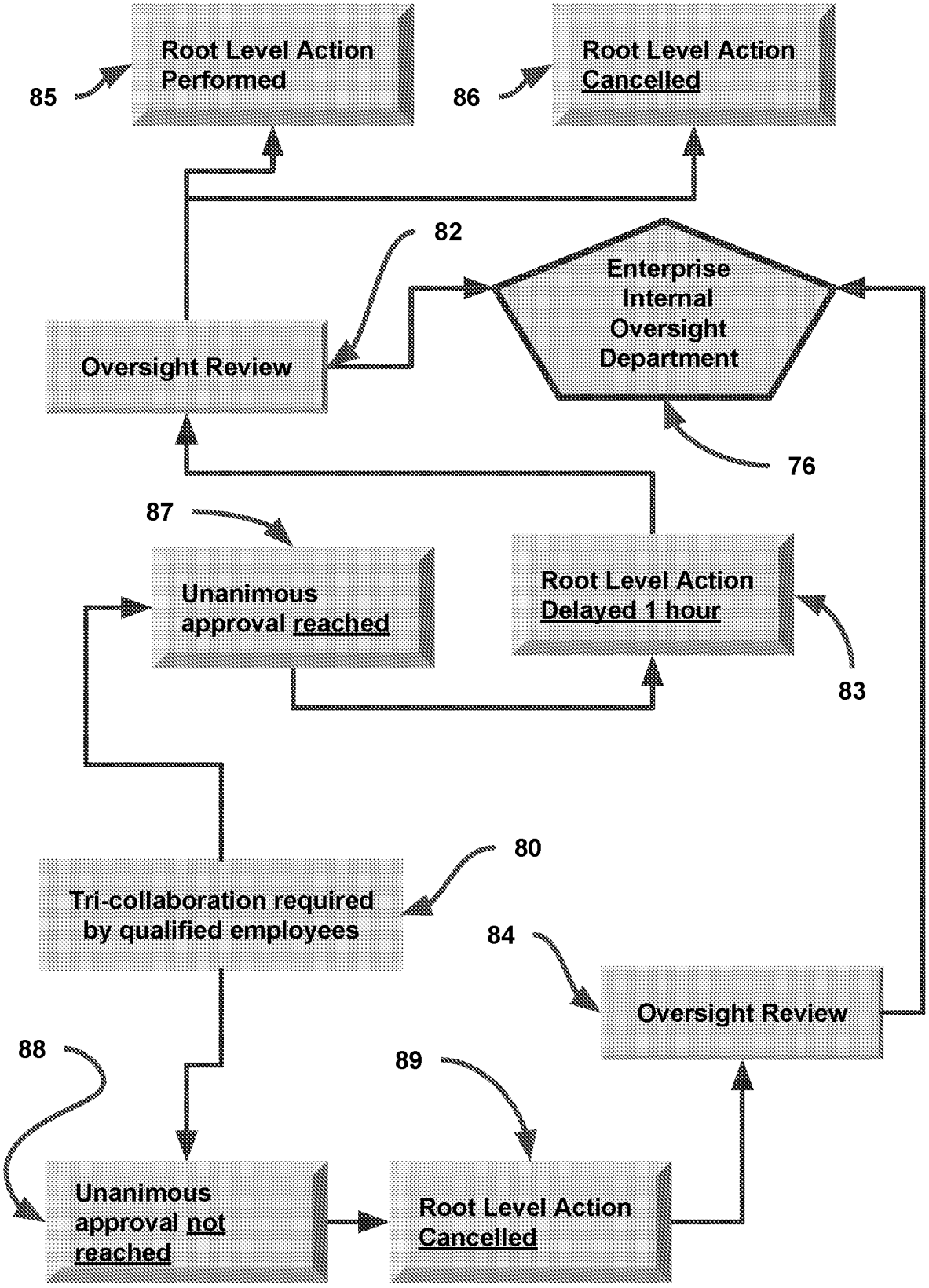

Root Level Action Performed
85
Root Level Action Cancelled
86
82
Enterprise Internal Oversight Department
Oversight Review
76
87
Unanimous approval reached
Root Level Action Delayed 1 hour
83
80
Tri-collaboration required by qualified employees
84
Oversight Review
88
89
Unanimous approval not reached
Root Level Action Cancelled

FIG. 18

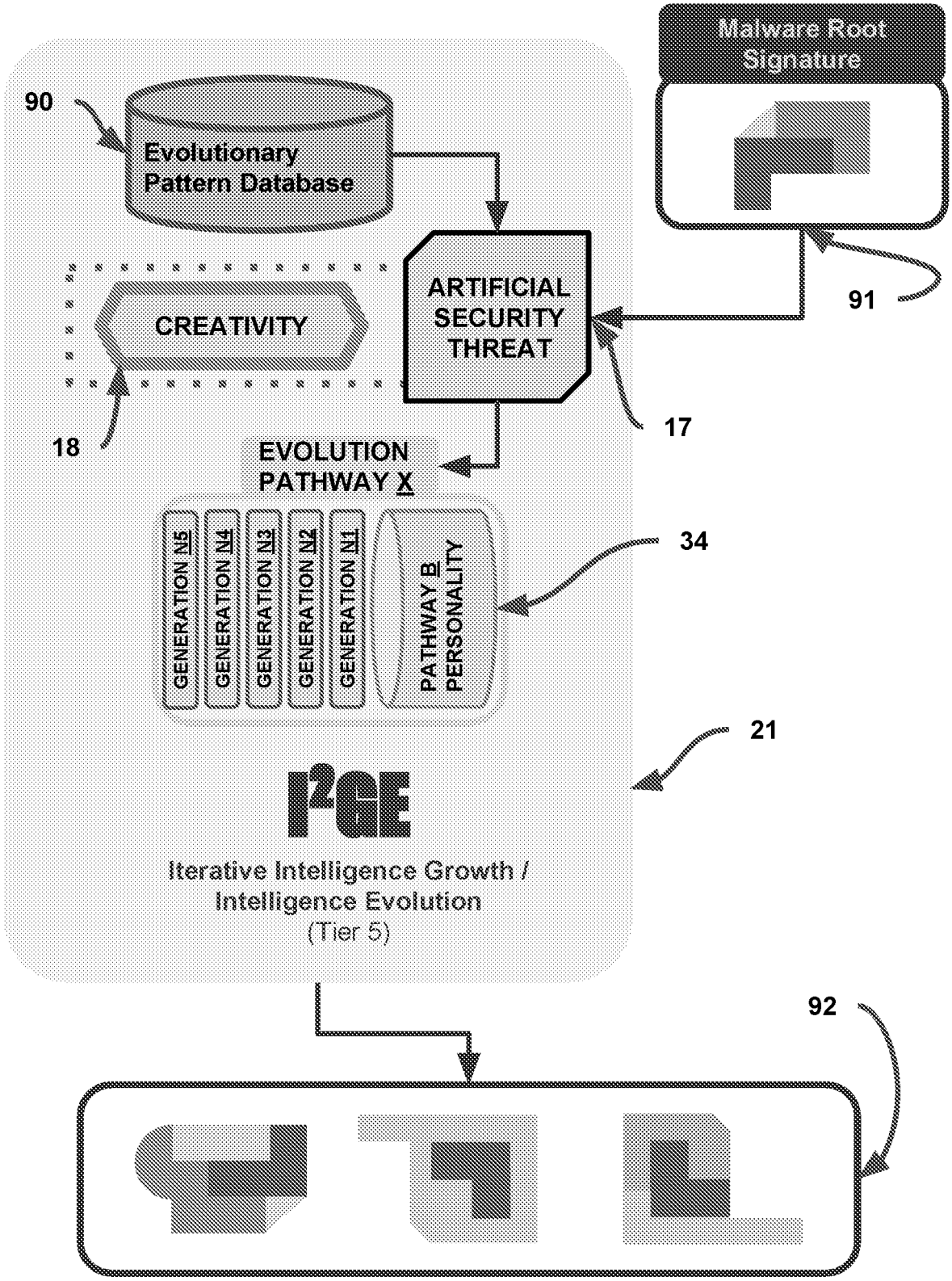

Malware Root Signature
90
Evolutionary Pattern Database
91
ARTIFICIAL SECURITY THREAT
CREATIVITY
18
17
EVOLUTION PATHWAY X
GENERATION N5
GENERATION N4
GENERATION N3
GENERATION N2
GENERATION N1
PATHWAY B PERSONALITY
34
21
I²GE
Iterative Intelligence Growth / Intelligence Evolution
(Tier 5)
92

FIG. 19

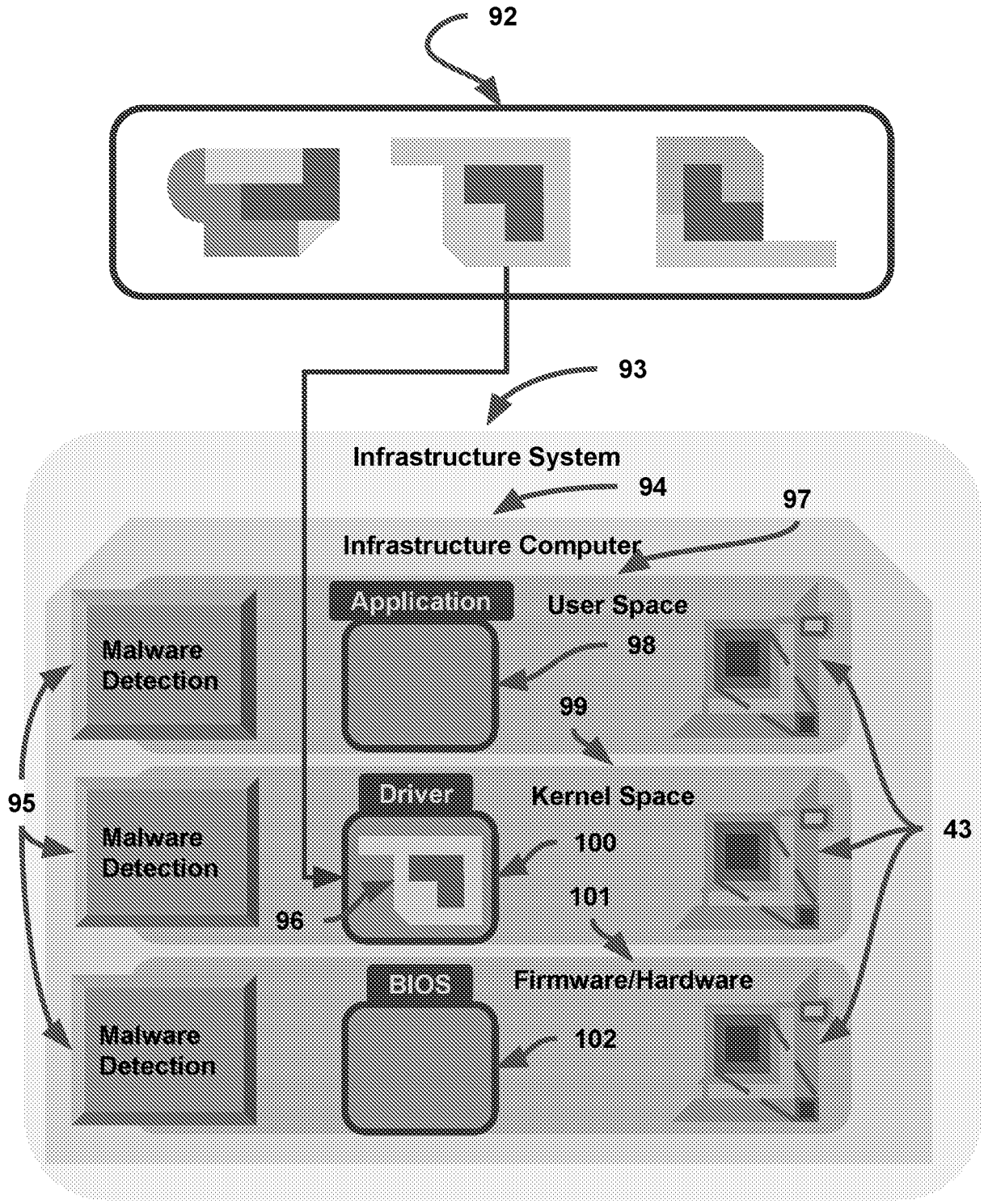

92
93
Infrastructure System
94
97
Infrastructure Computer
Application
User Space
98
99
Malware Detection
Driver
Kernel Space
100
101
95
96
43
BIOS
Firmware/Hardware
102

FIG. 20

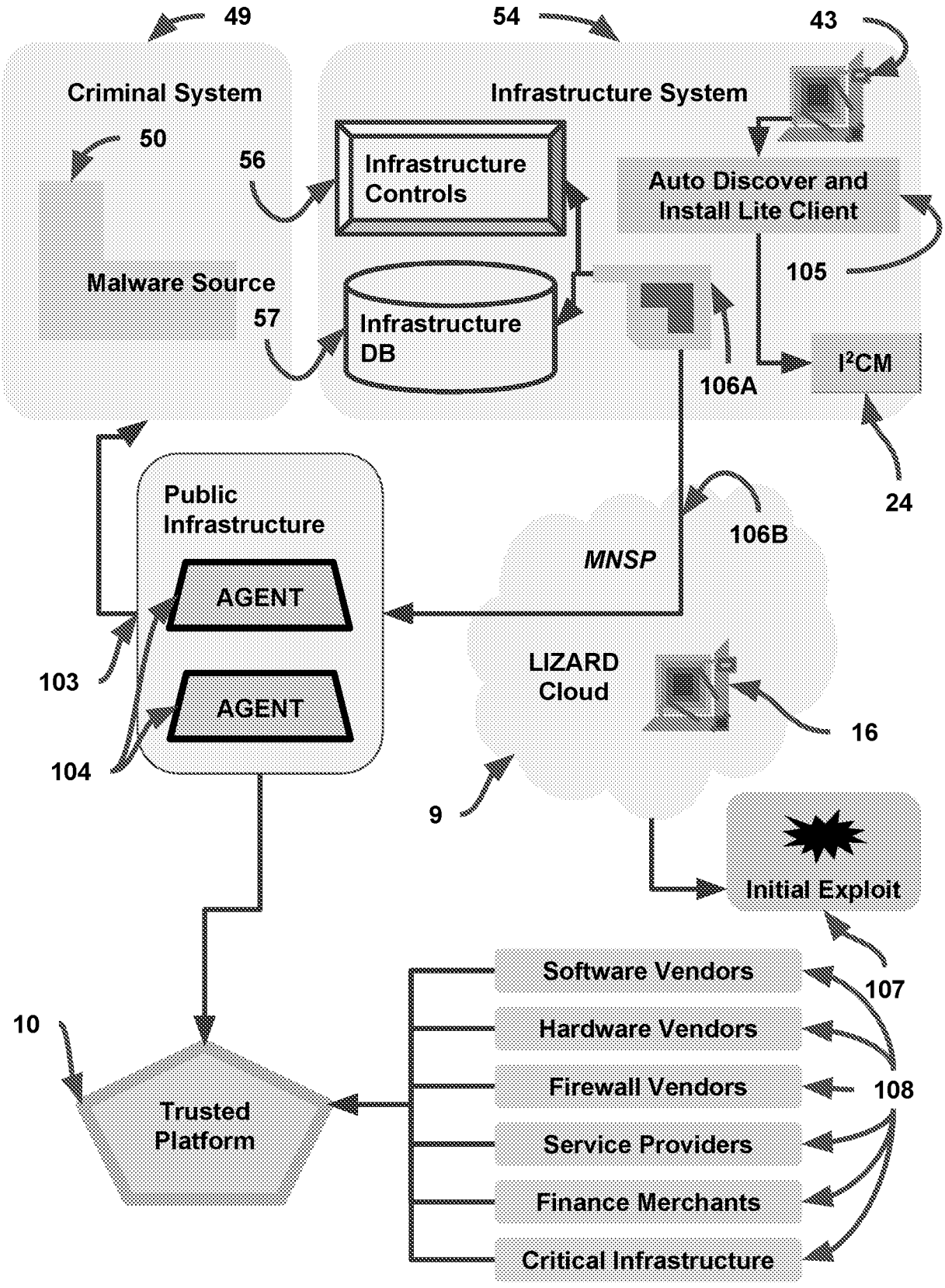

49
54
43
Criminal System
Infrastructure System
50
56
Infrastructure Controls
Auto Discover and Install Lite Client
Malware Source
57
Infrastructure DB
105
106A
I²CM
24
Public Infrastructure
106B
MNSP
AGENT
AGENT
103
104
LIZARD Cloud
16
9
Initial Exploit
Software Vendors
107
10
Hardware Vendors
Trusted Platform
Firewall Vendors
108
Service Providers
Finance Merchants
Critical Infrastructure

FIG. 21

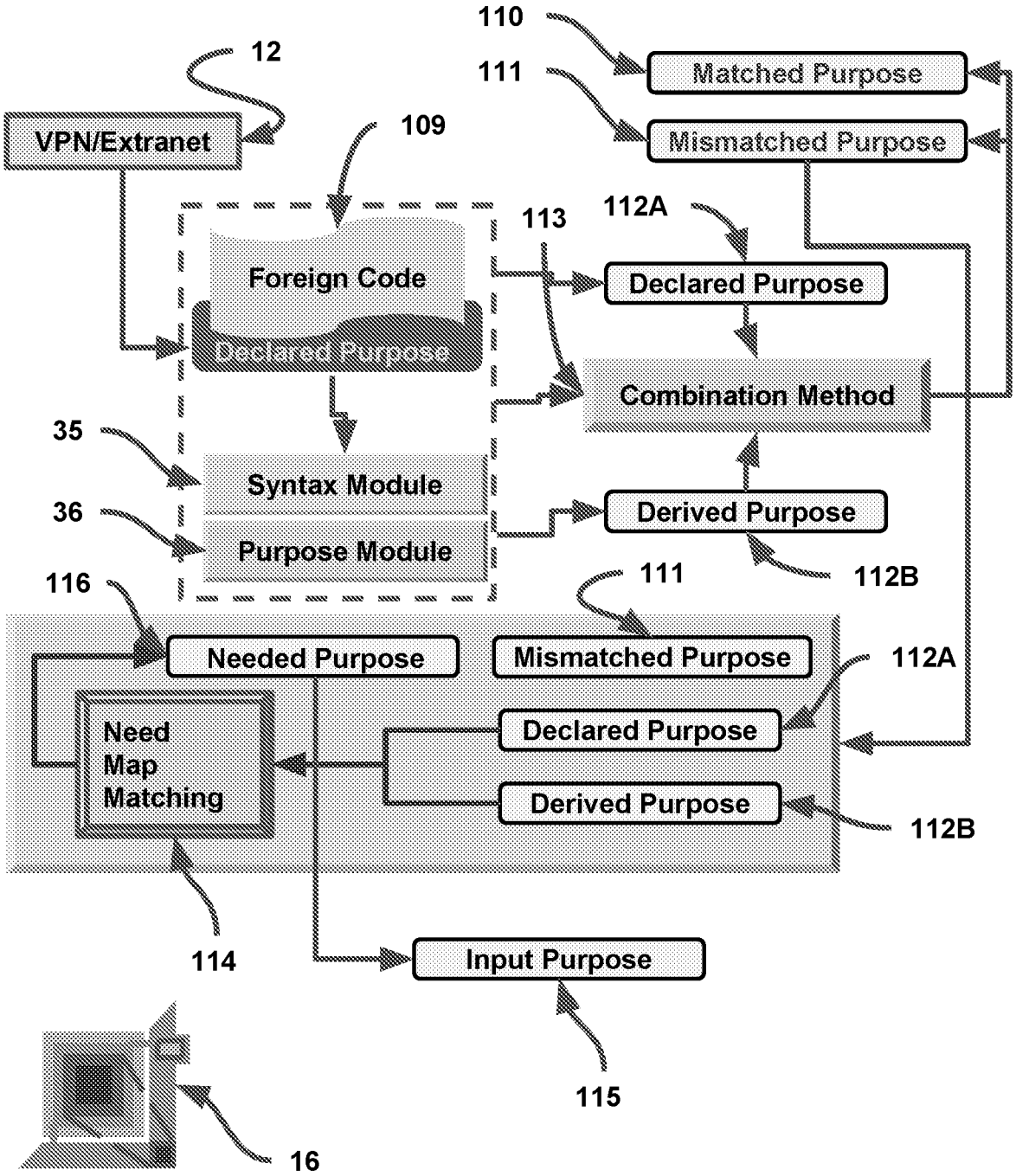

110
111
Matched Purpose
Mismatched Purpose
12
VPN/Extranet
109
113
112A
Foreign Code
Declared Purpose
Declared Purpose
Combination Method
35
Syntax Module
36
Purpose Module
Derived Purpose
112B
116
111
Needed Purpose
Mismatched Purpose
112A
Need Map Matching
Declared Purpose
Derived Purpose
112B
114
Input Purpose
115
16

FIG. 22

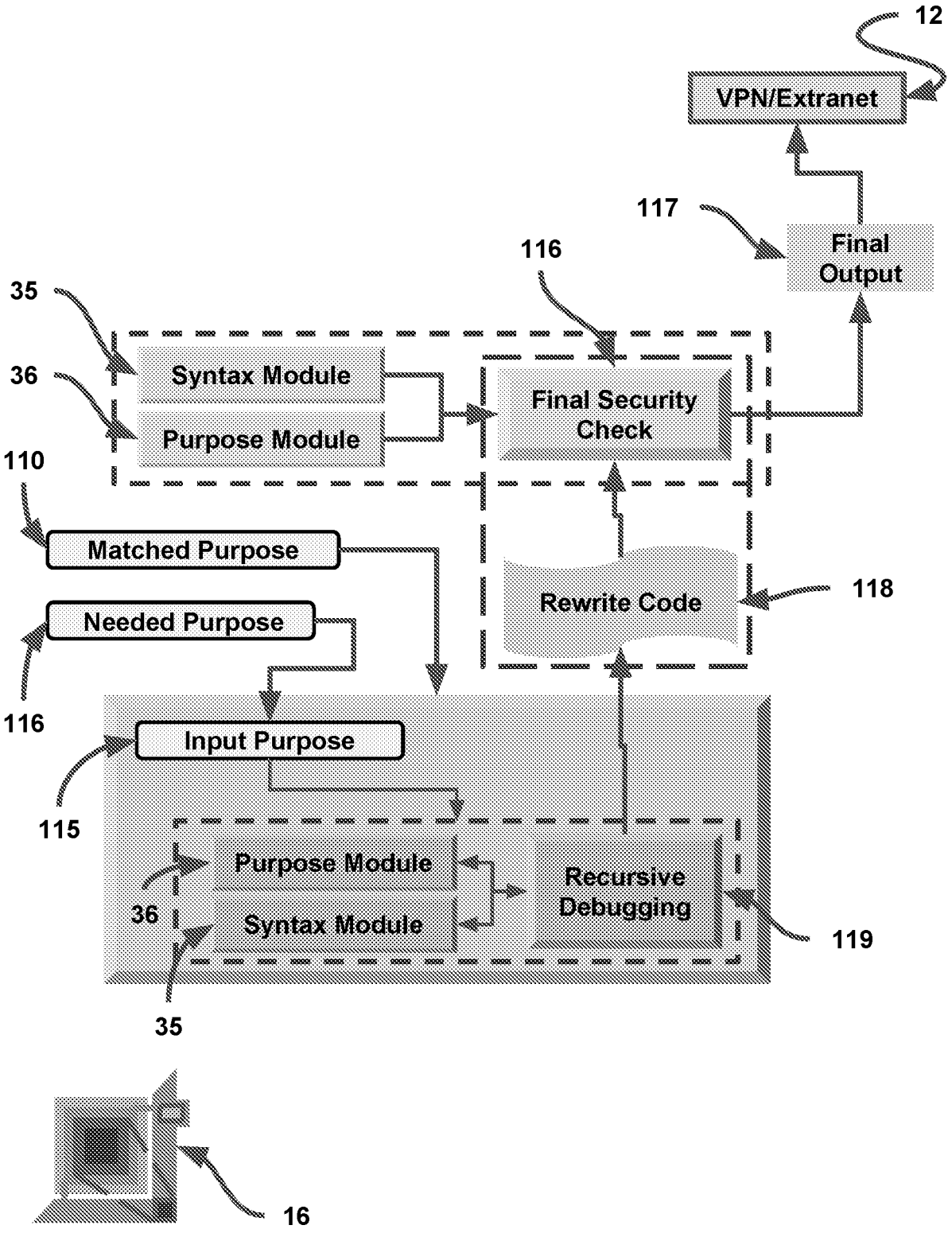

12
VPN/Extranet
117
Final Output
116
35
36
Syntax Module
Purpose Module
Final Security Check
110
Matched Purpose
Needed Purpose
Rewrite Code
118
116
Input Purpose
115
Purpose Module
36
Syntax Module
Recursive Debugging
119
35
16

FIG. 23

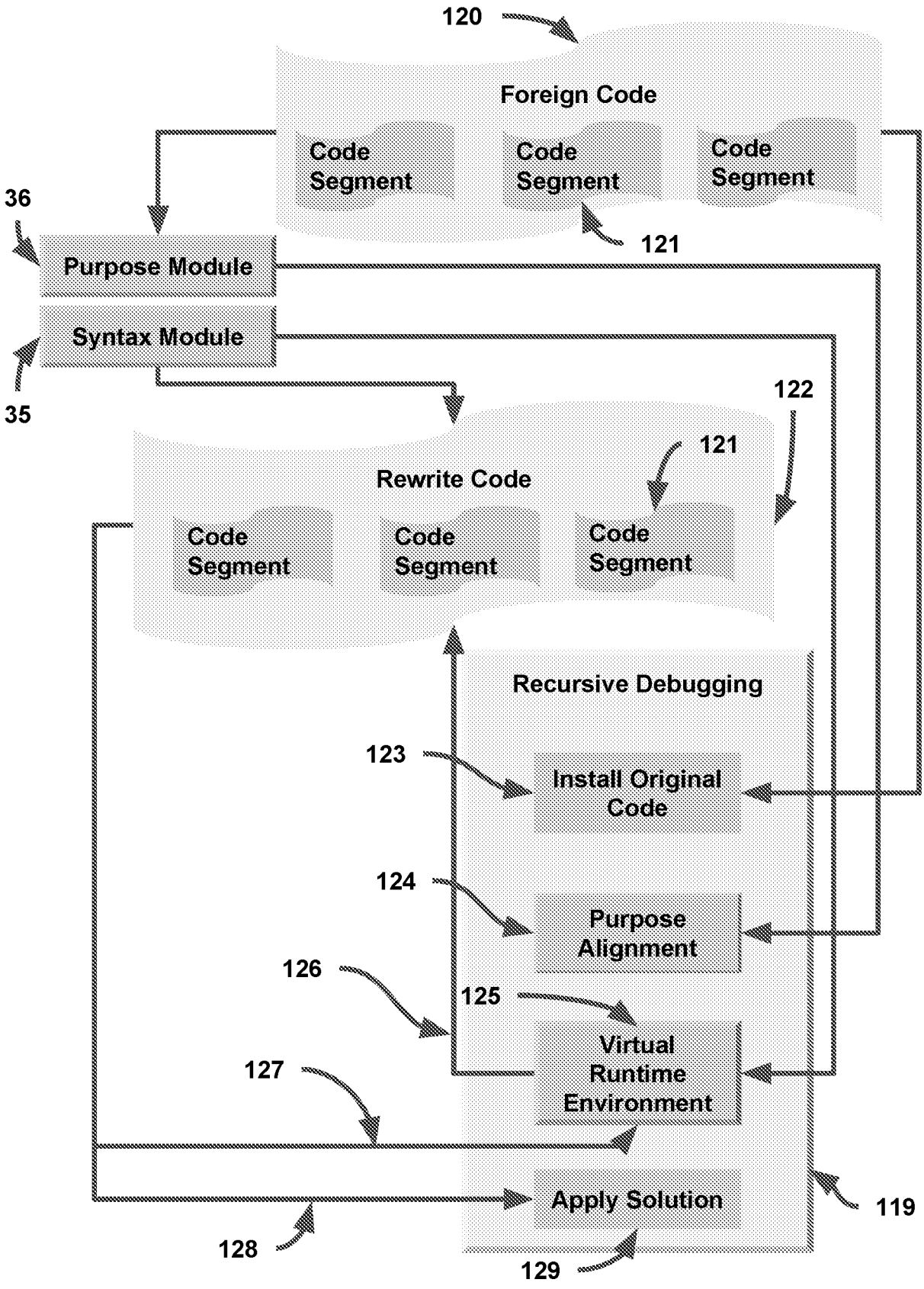

120
Foreign Code
Code Segment
Code Segment
Code Segment
121
36
Purpose Module
Syntax Module
35
122
121
Rewrite Code
Code Segment
Code Segment
Code Segment
Recursive Debugging
123
Install Original Code
124
Purpose Alignment
126
125
Virtual Runtime Environment
127
Apply Solution
119
128
129

FIG. 24

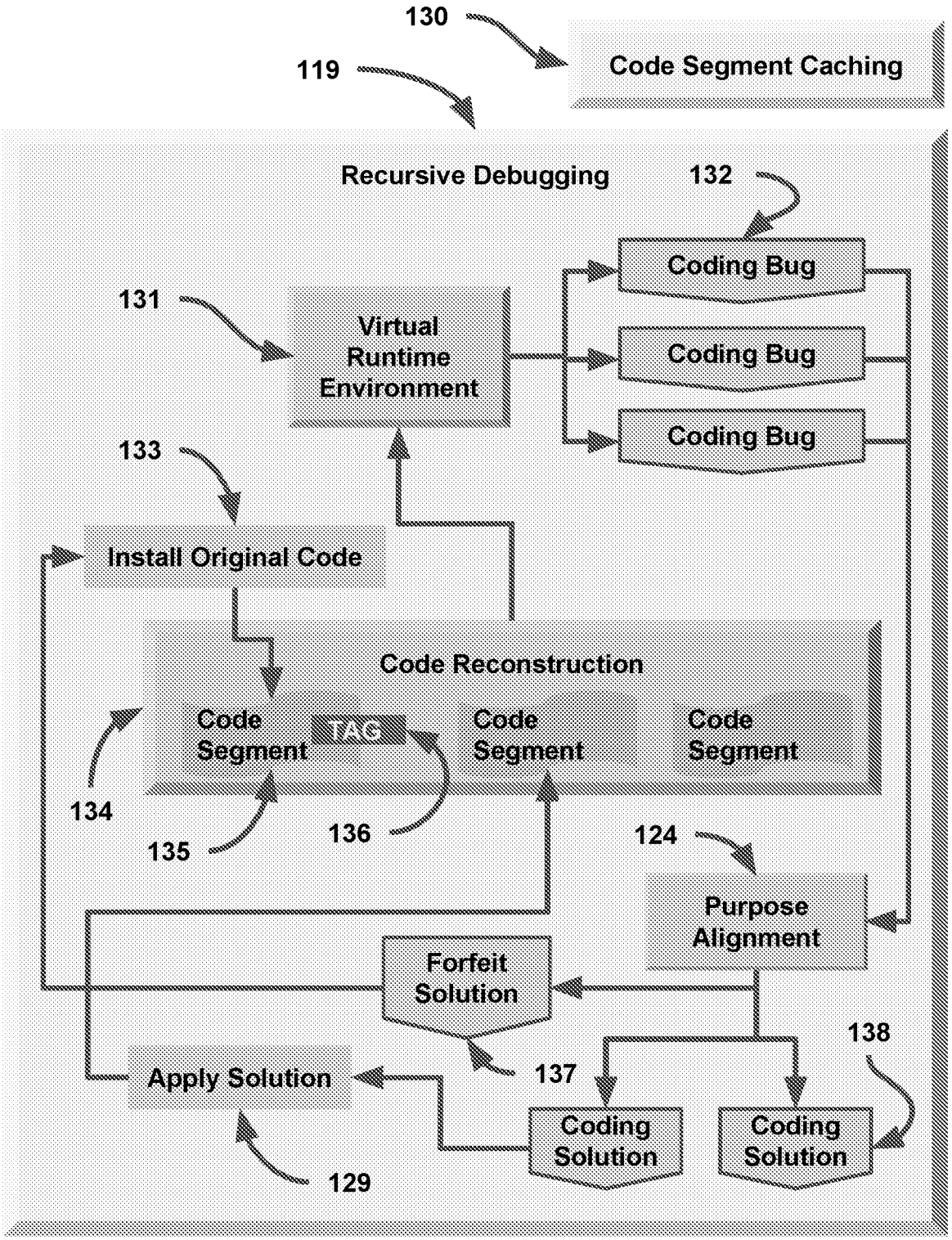

130
Code Segment Caching
119
Recursive Debugging
132
Coding Bug
131
Virtual Runtime Environment
Coding Bug
Coding Bug
133
Install Original Code
Code Reconstruction
Code Segment
TAG
Code Segment
Code Segment
134
135
136
124
Purpose Alignment
Forfeit Solution
138
137
Apply Solution
Coding Solution
Coding Solution
129

FIG. 25

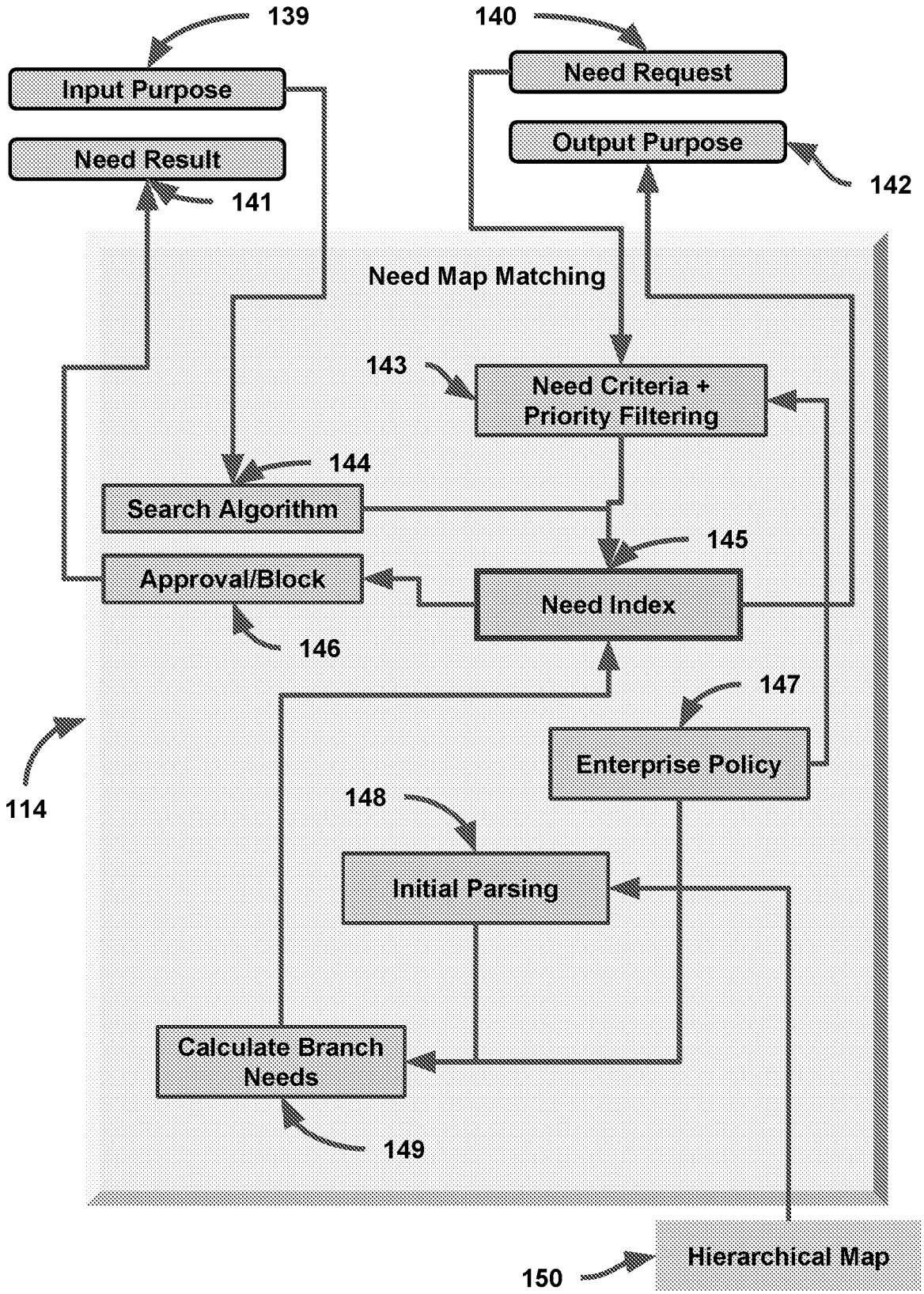

139
140
Input Purpose
Need Request
Output Purpose
Need Result
141
142
Need Map Matching
143
Need Criteria + Priority Filtering
144
Search Algorithm
145
Approval/Block
Need Index
146
147
114
Enterprise Policy
148
Initial Parsing
Calculate Branch Needs
149
150
Hierarchical Map

FIG. 26

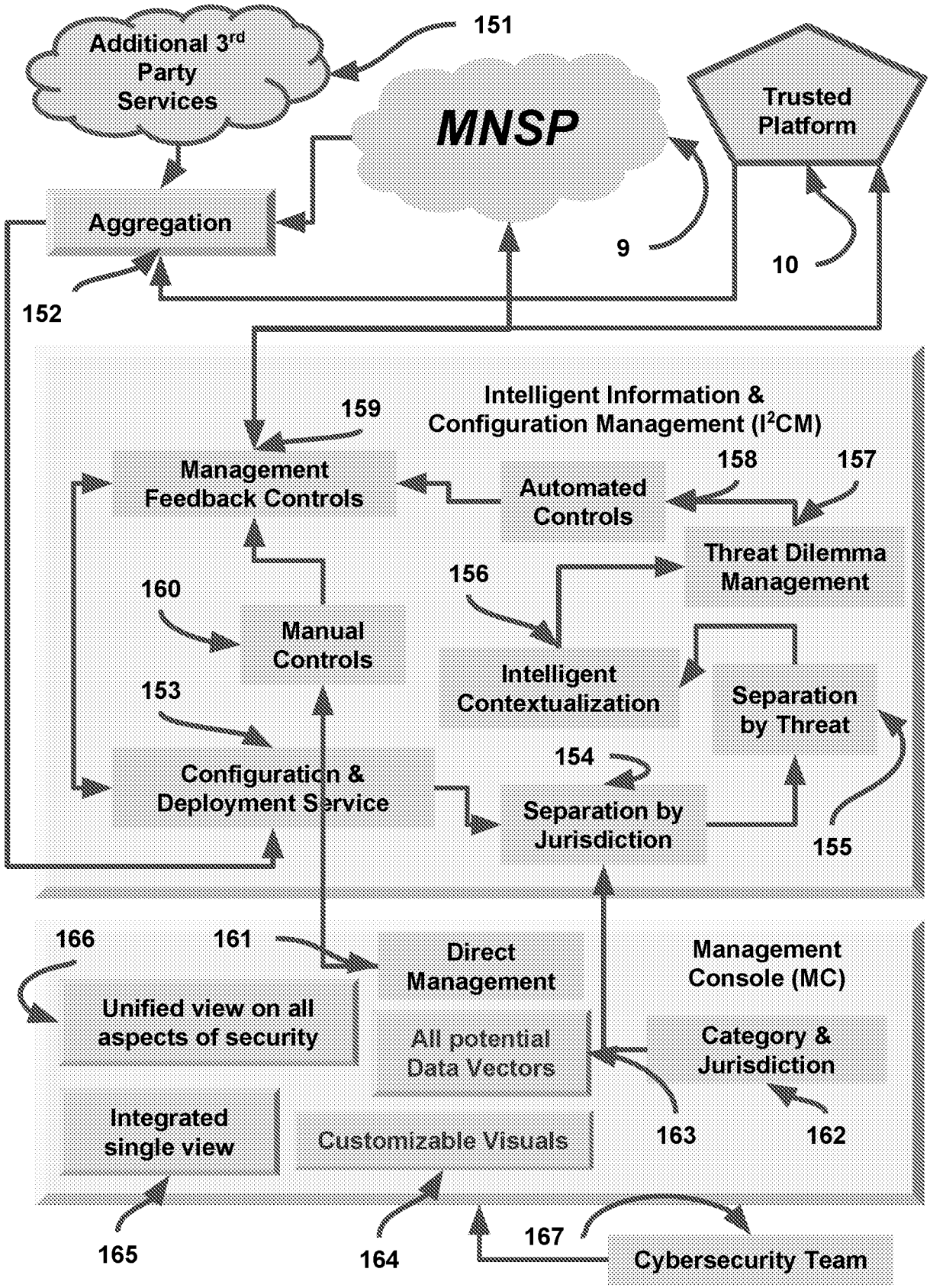

Additional 3rd Party Services
151
MNSP
Trusted Platform
Aggregation
9
10
152
159
Intelligent Information & Configuration Management (I2CM)
Management Feedback Controls
158
157
Automated Controls
Threat Dilemma Management
156
160
Manual Controls
Intelligent Contextualization
Separation by Threat
153
154
Configuration & Deployment Service
Separation by Jurisdiction
155
166
161
Direct Management
Management Console (MC)
Unified view on all aspects of security
All potential Data Vectors
Category & Jurisdiction
Integrated single view
Customizable Visuals
163
162
165
164
167
Cybersecurity Team

FIG. 27

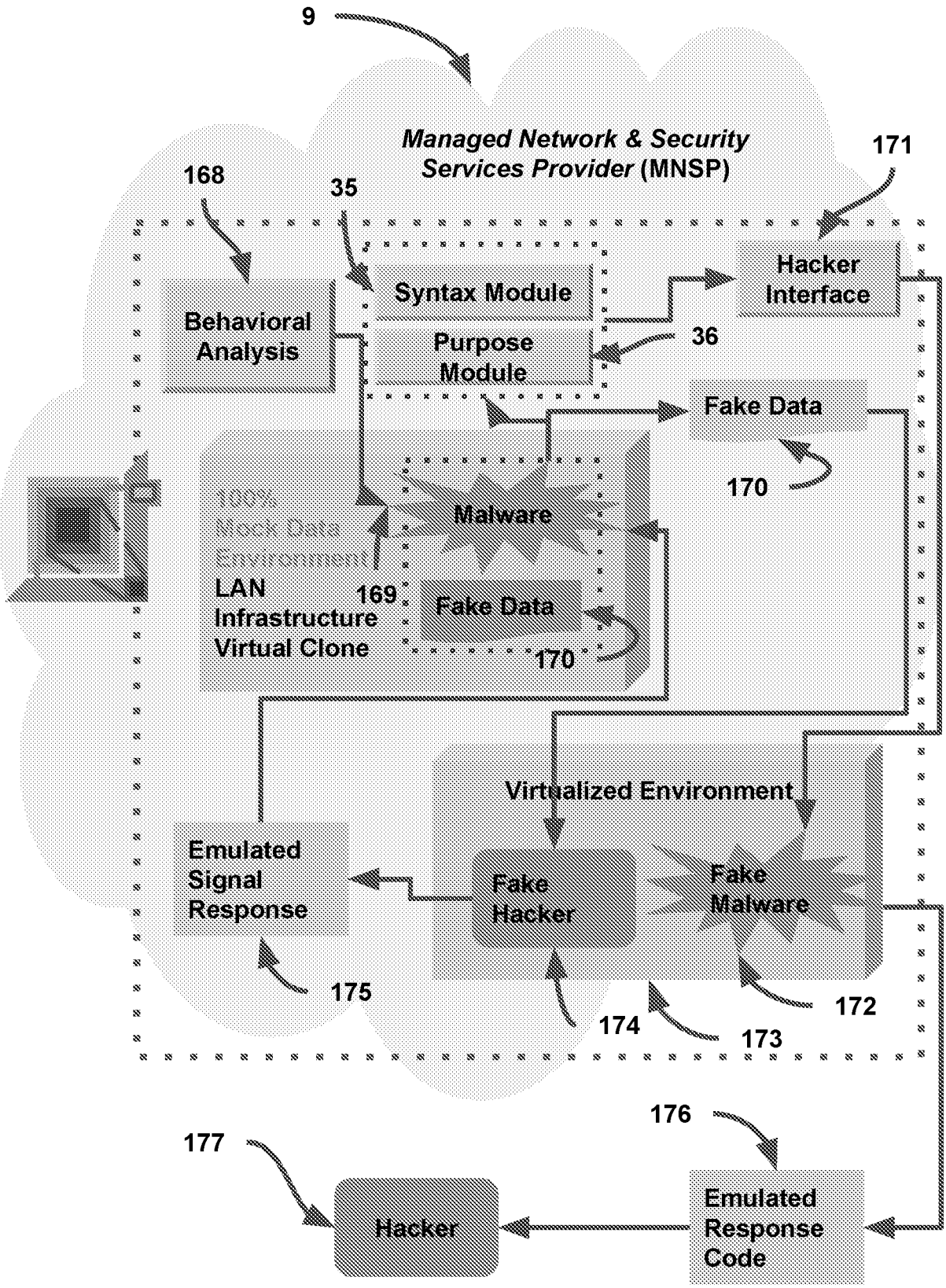

9
Managed Network & Security Services Provider (MNSP)
171
168
35
Hacker Interface
Syntax Module
Behavioral Analysis
Purpose Module
36
Fake Data
170
100% Mock Data Environment
Malware
LAN Infrastructure Virtual Clone
169
Fake Data
170
Virtualized Environment
Emulated Signal Response
Fake Hacker
Fake Malware
175
174
173
172
176
177
Hacker
Emulated Response Code

FIG. 28

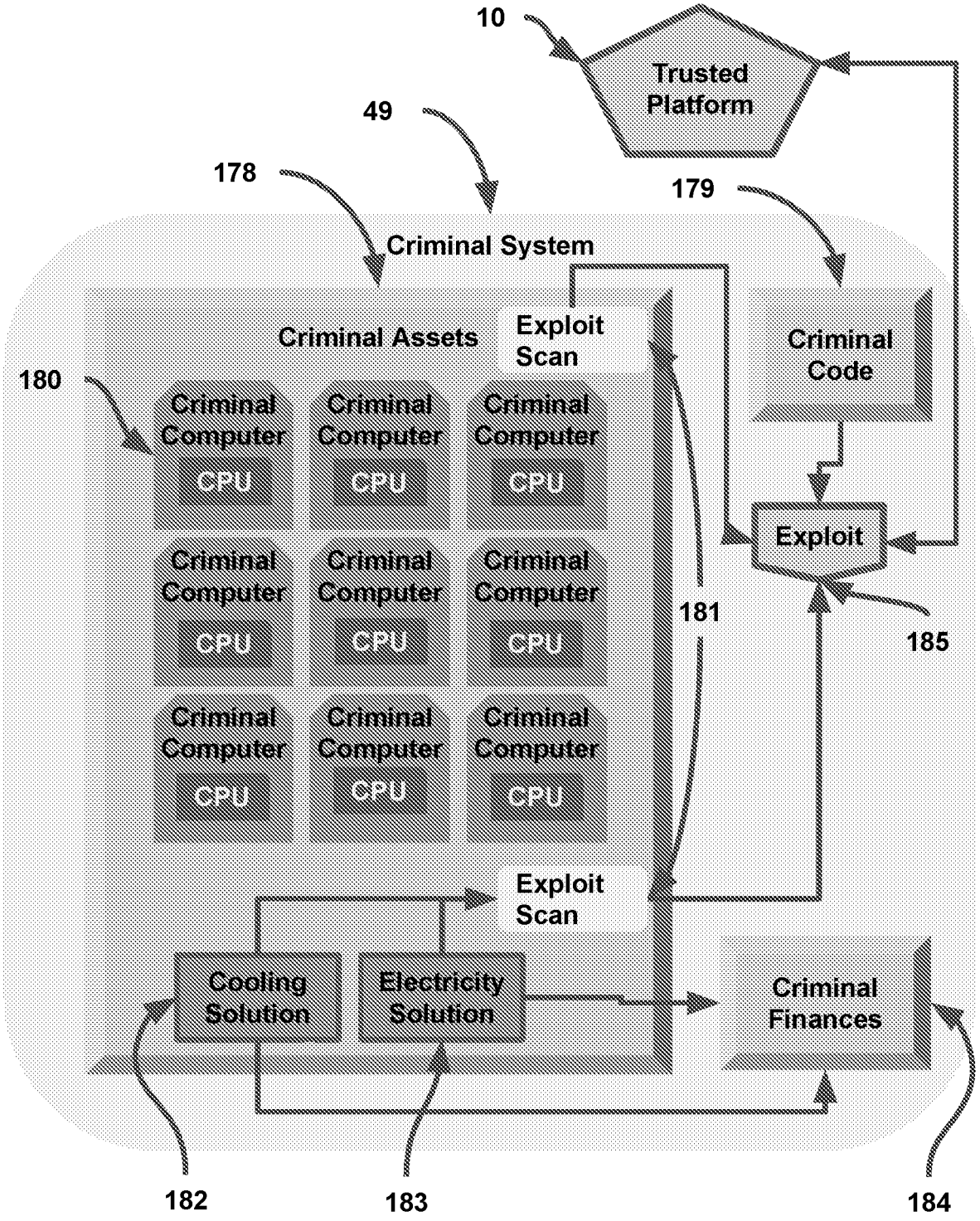

10
Trusted Platform
49
178
179
Criminal System
Criminal Assets
Exploit Scan
Criminal Code
180
Criminal Computer
CPU
Exploit
181
185
Exploit Scan
Cooling Solution
Electricity Solution
Criminal Finances
182
183
184

FIG. 29

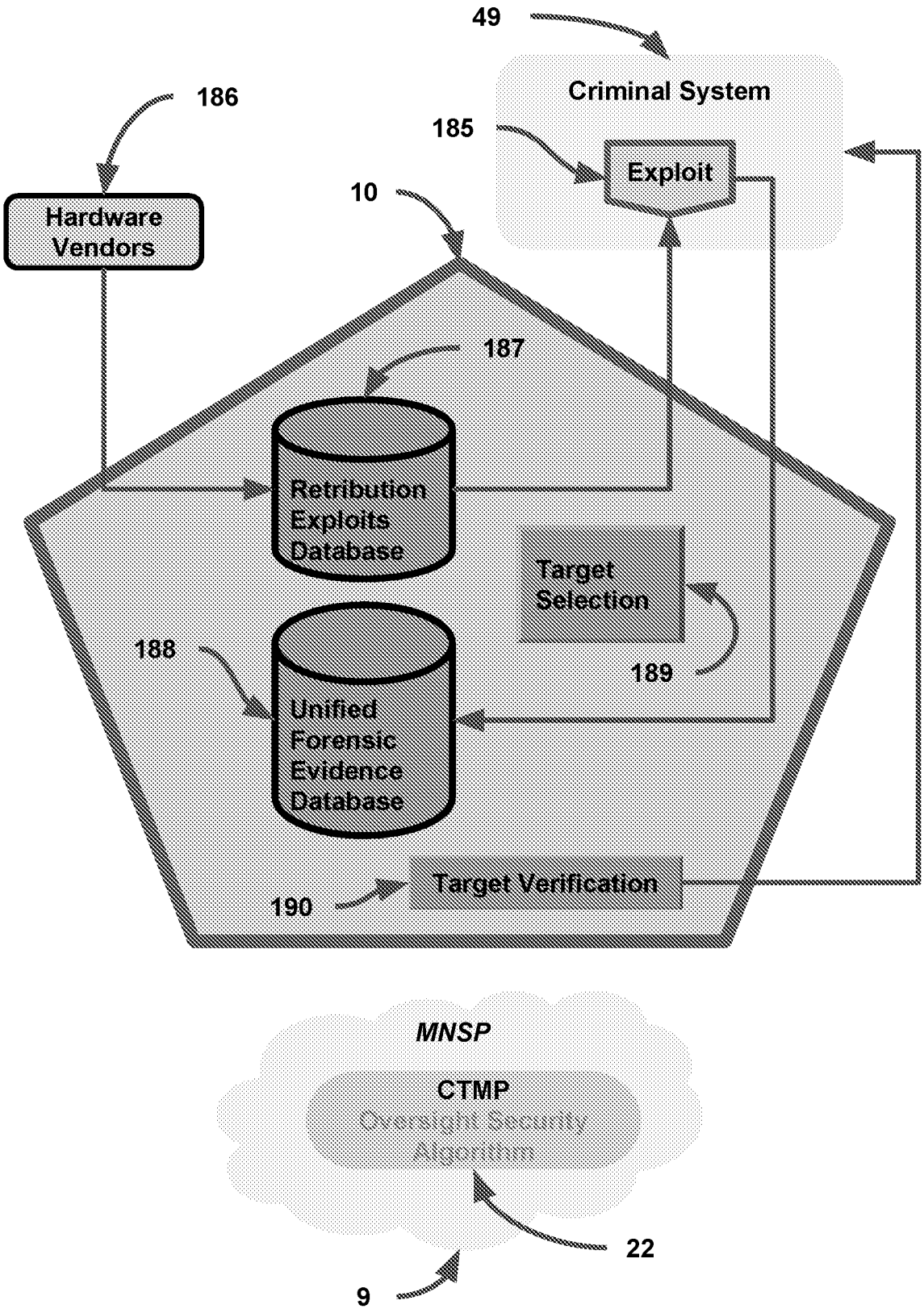

49
Criminal System
186
185
Exploit
Hardware Vendors
10
187
Retribution Exploits Database
Target Selection
188
189
Unified Forensic Evidence Database
Target Verification
190
MNSP
CTMP
Oversight Security Algorithm
22
9

FIG. 30

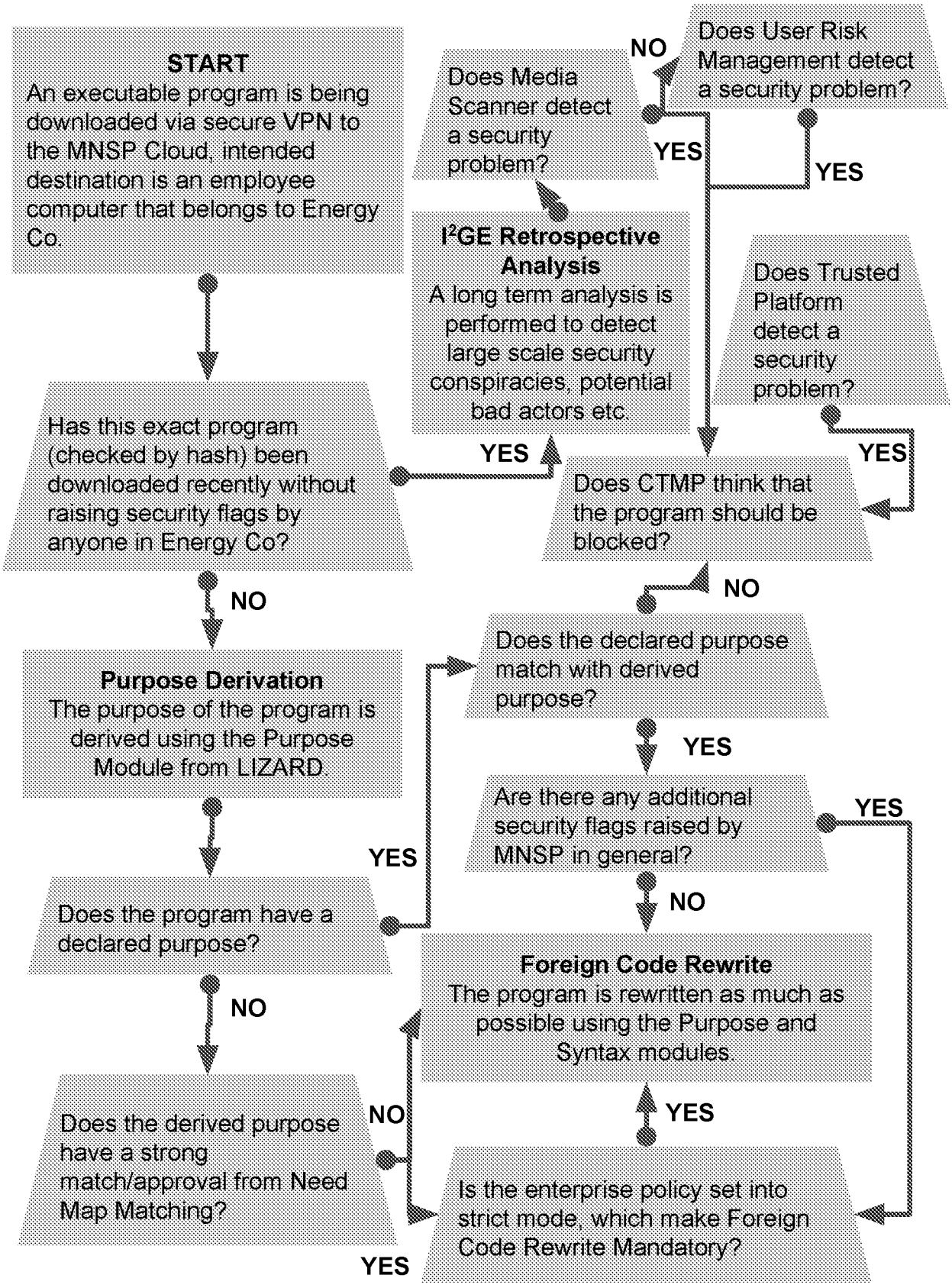

START
An executable program is being downloaded via secure VPN to the MNSP Cloud, intended destination is an employee computer that belongs to Energy Co.
Has this exact program (checked by hash) been downloaded recently without raising security flags by anyone in Energy Co?
NO
YES
Purpose Derivation
The purpose of the program is derived using the Purpose Module from LIZARD.
Does the program have a declared purpose?
YES
NO
Does the declared purpose match with derived purpose?
YES
NO
Does the derived purpose have a strong match/approval from Need Map Matching?
NO
YES
I²GE Retrospective Analysis
A long term analysis is performed to detect large scale security conspiracies, potential bad actors etc.
Does Media Scanner detect a security problem?
YES
NO
Does User Risk Management detect a security problem?
YES
Does Trusted Platform detect a security problem?
YES
Does CTMP think that the program should be blocked?
NO
YES
Are there any additional security flags raised by MNSP in general?
YES
NO
Foreign Code Rewrite
The program is rewritten as much as possible using the Purpose and Syntax modules.
YES
Is the enterprise policy set into strict mode, which make Foreign Code Rewrite Mandatory?

FIG. 31

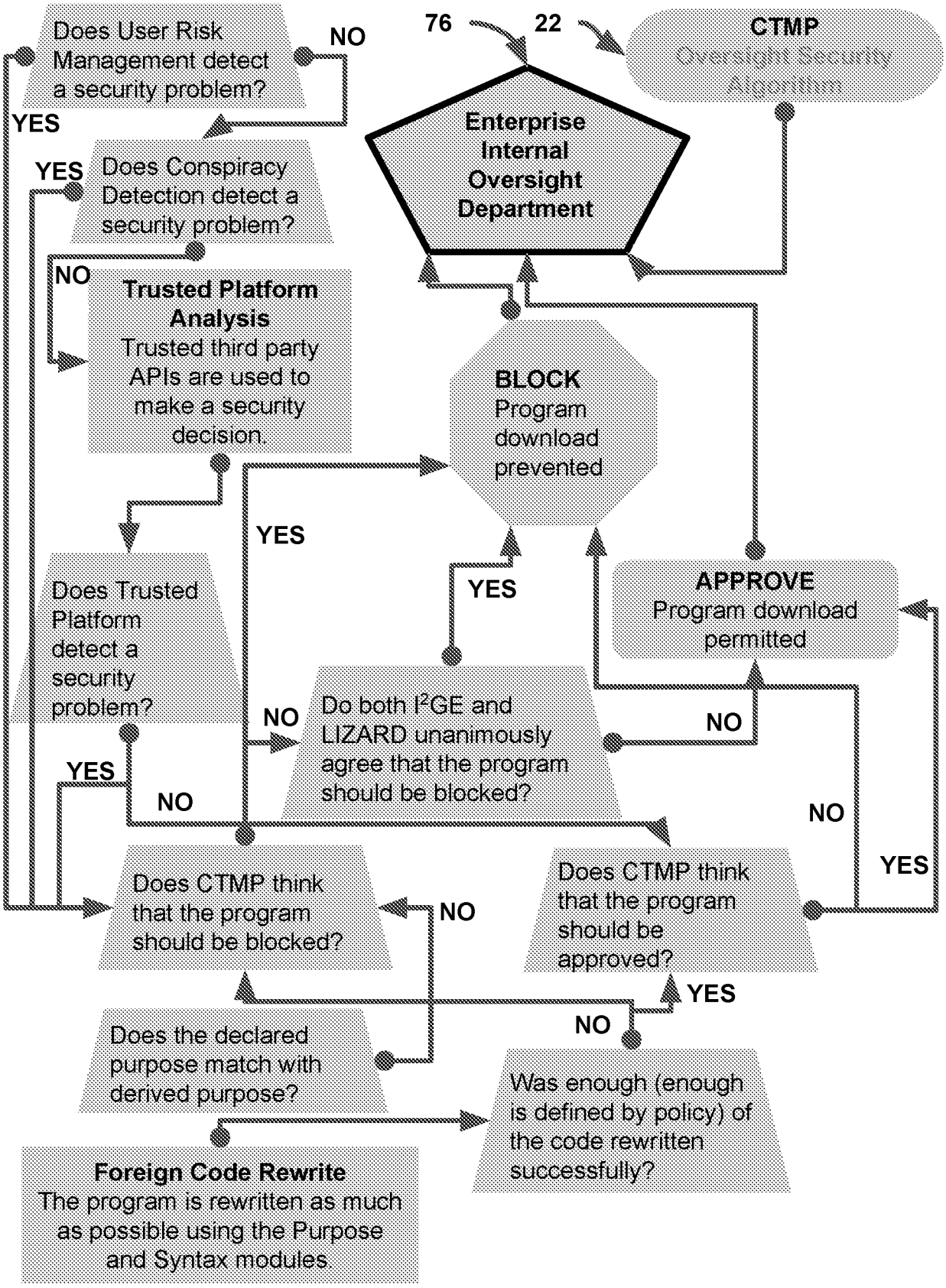

Does User Risk Management detect a security problem?
NO
YES
76
22
CTMP
Oversight Security Algorithm
Enterprise Internal Oversight Department
YES
Does Conspiracy Detection detect a security problem?
NO
Trusted Platform Analysis
Trusted third party APIs are used to make a security decision.
BLOCK
Program download prevented
YES
Does Trusted Platform detect a security problem?
YES
APPROVE
Program download permitted
NO
Do both I²GE and LIZARD unanimously agree that the program should be blocked?
NO
YES
NO
NO
YES
Does CTMP think that the program should be blocked?
NO
Does CTMP think that the program should be approved?
YES
NO
Does the declared purpose match with derived purpose?
Was enough (enough is defined by policy) of the code rewritten successfully?
Foreign Code Rewrite
The program is rewritten as much as possible using the Purpose and Syntax modules.

FIG. 32

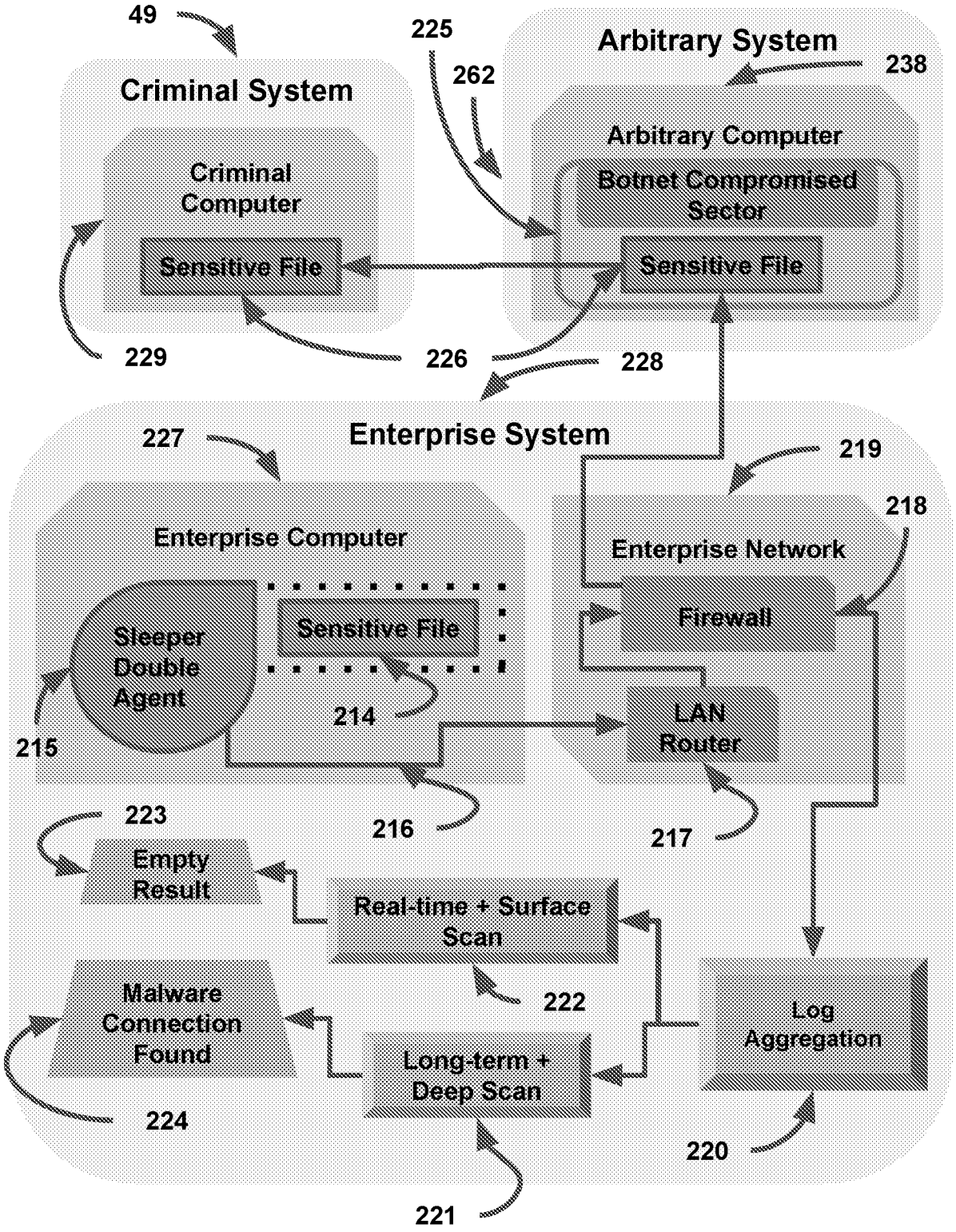

49
Criminal System
Criminal Computer
Sensitive File
225
262
Arbitrary System
238
Arbitrary Computer
Botnet Compromised Sector
Sensitive File
229
226
228
227
Enterprise System
219
218
Enterprise Computer
Enterprise Network
Sleeper Double Agent
Sensitive File
Firewall
214
LAN Router
215
223
216
217
Empty Result
Real-time + Surface Scan
222
Malware Connection Found
Log Aggregation
Long-term + Deep Scan
224
220
221

FIG. 33

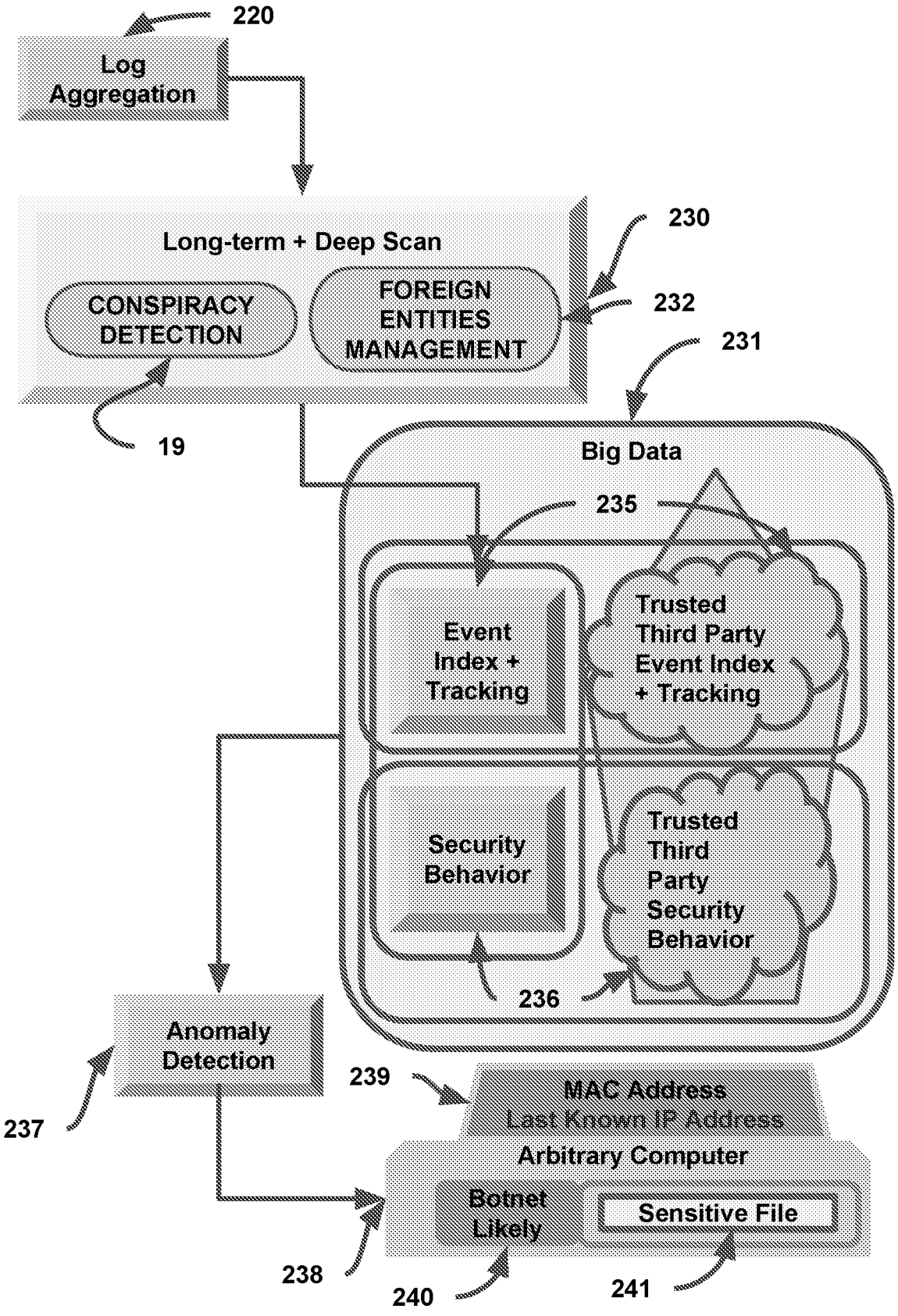

220
Log Aggregation
Long-term + Deep Scan
230
CONSPIRACY DETECTION
FOREIGN ENTITIES MANAGEMENT
232
231
19
Big Data
235
Event Index + Tracking
Trusted Third Party Event Index + Tracking
Security Behavior
Trusted Third Party Security Behavior
236
Anomaly Detection
239
MAC Address
Last Known IP Address
Arbitrary Computer
237
Botnet Likely
Sensitive File
238
240
241

FIG. 34

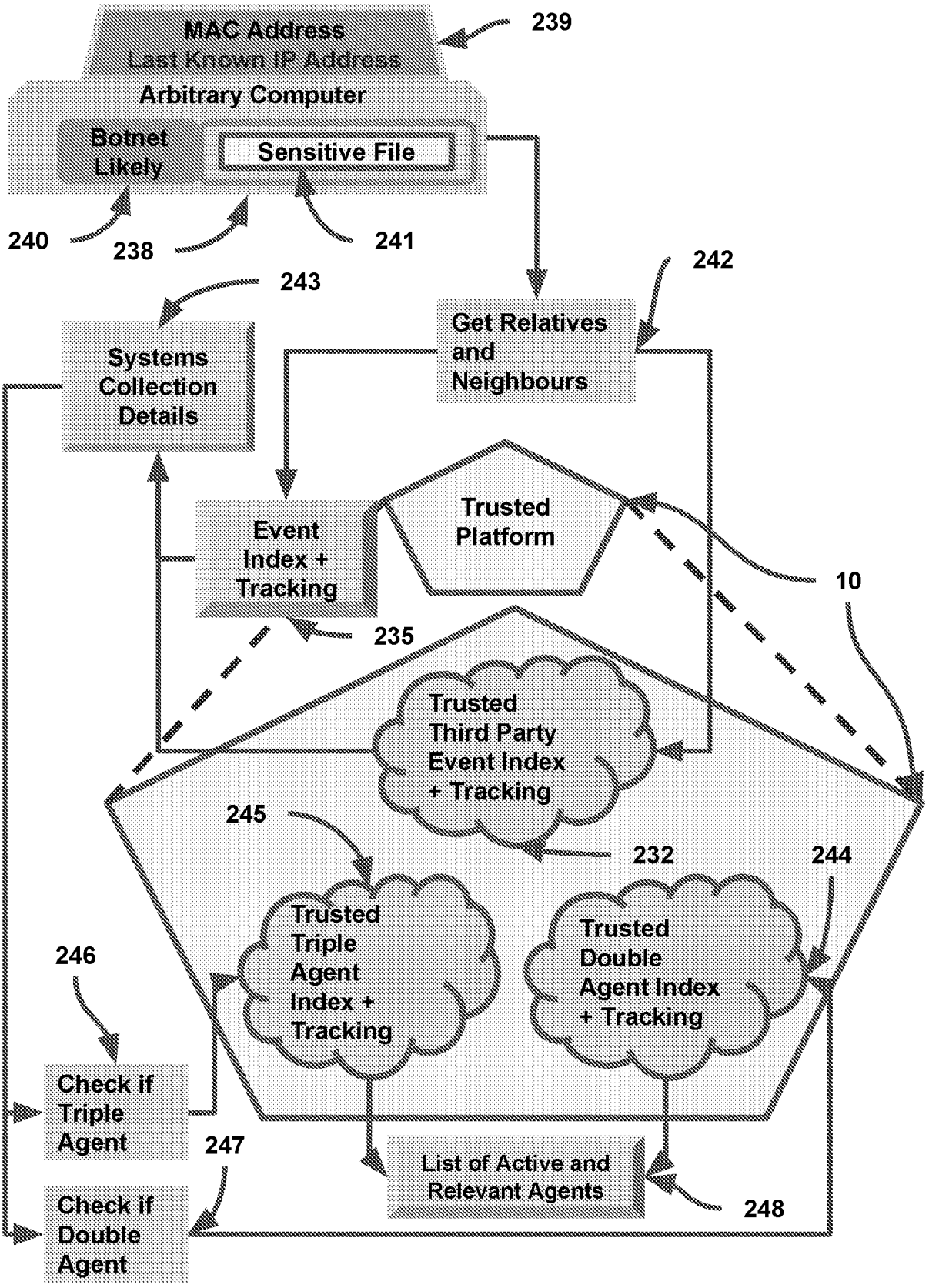

MAC Address
Last Known IP Address
Arbitrary Computer
239
Botnet Likely
Sensitive File
240
238
241
242
243
Systems Collection Details
Get Relatives and Neighbours
Event Index + Tracking
Trusted Platform
10
235
Trusted Third Party Event Index + Tracking
245
232
244
Trusted Triple Agent Index + Tracking
Trusted Double Agent Index + Tracking
246
Check if Triple Agent
247
List of Active and Relevant Agents
248
Check if Double Agent

FIG. 35

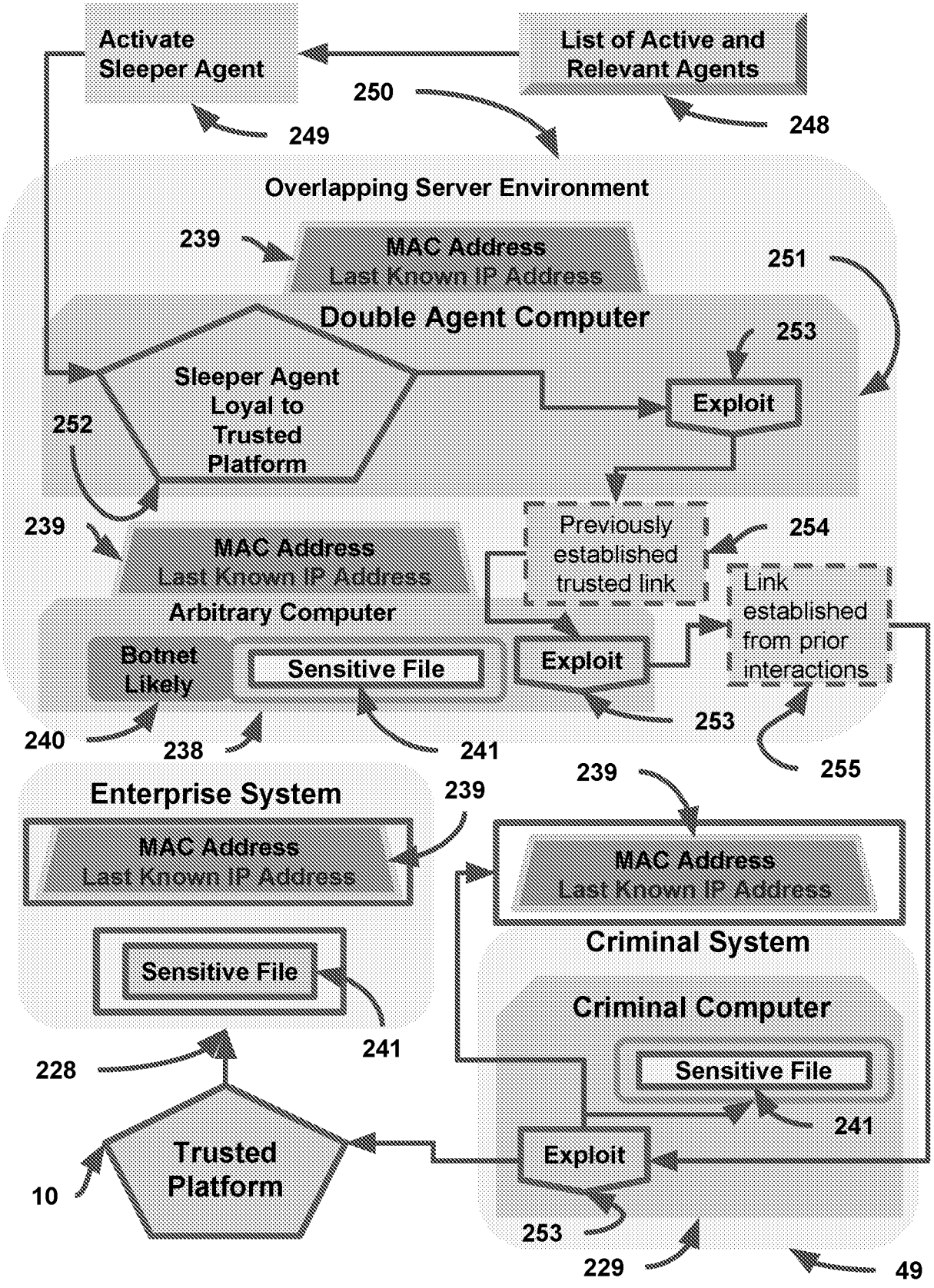

Activate Sleeper Agent
List of Active and Relevant Agents
250
249
248
Overlapping Server Environment
239
MAC Address
Last Known IP Address
251
Double Agent Computer
253
Sleeper Agent Loyal to Trusted Platform
Exploit
252
239
MAC Address
Last Known IP Address
Previously established trusted link
254
Link established from prior interactions
Arbitrary Computer
Botnet Likely
Sensitive File
Exploit
240
238
241
253
255
239
Enterprise System
239
MAC Address
Last Known IP Address
MAC Address
Last Known IP Address
Criminal System
Sensitive File
Criminal Computer
241
Sensitive File
228
241
Trusted Platform
Exploit
10
253
229
49

FIG. 36

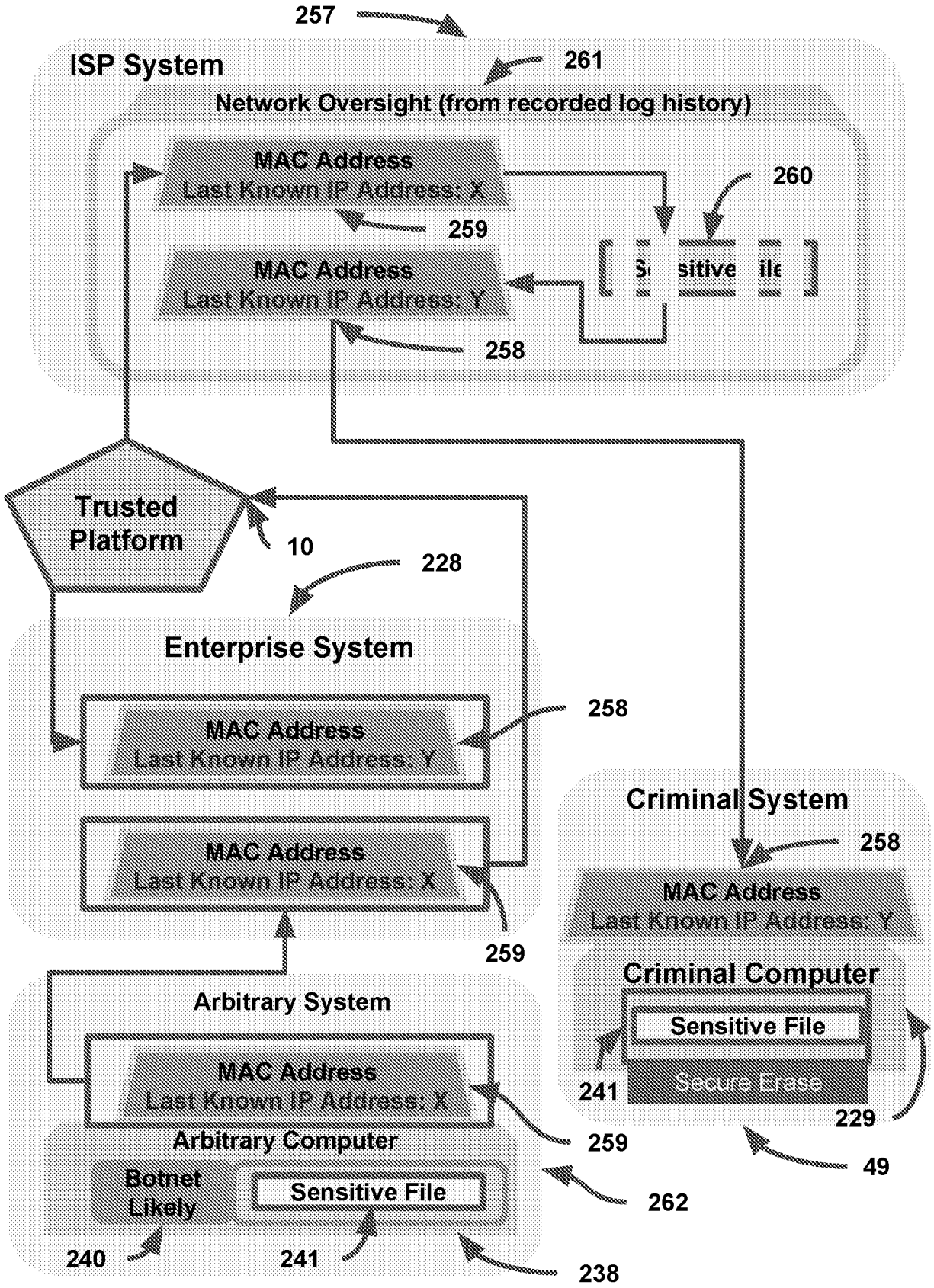

257
ISP System
261
Network Oversight (from recorded log history)
MAC Address
Last Known IP Address: X
260
259
MAC Address
Last Known IP Address: Y
258
Trusted Platform
10
228
Enterprise System
258
MAC Address
Last Known IP Address: Y
MAC Address
Last Known IP Address: X
259
Criminal System
258
MAC Address
Last Known IP Address: Y
Criminal Computer
Sensitive File
241
Secure Erase
229
49
Arbitrary System
MAC Address
Last Known IP Address: X
259
Arbitrary Computer
Botnet Likely
Sensitive File
262
240
241
238

FIG. 37

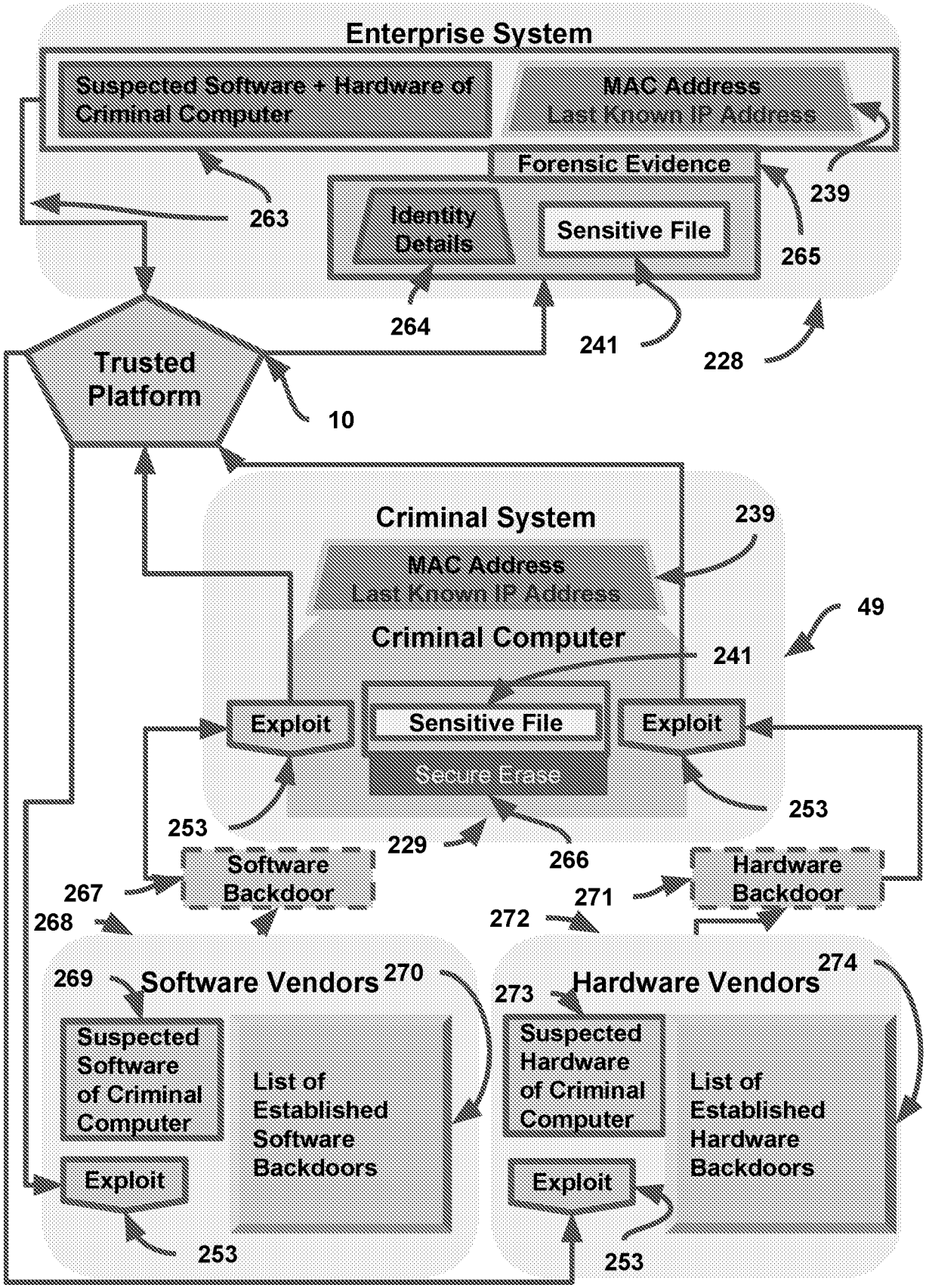

Enterprise System
Suspected Software + Hardware of Criminal Computer
MAC Address
Last Known IP Address
Forensic Evidence
Identity Details
Sensitive File
263
239
265
264
241
228
Trusted Platform
10
Criminal System
239
MAC Address
Last Known IP Address
Criminal Computer
49
241
Exploit
Sensitive File
Secure Erase
Exploit
253
253
229
266
Software Backdoor
Hardware Backdoor
267
268
271
272
269
Software Vendors
270
273
Hardware Vendors
274
Suspected Software of Criminal Computer
List of Established Software Backdoors
Exploit
253
Suspected Hardware of Criminal Computer
List of Established Hardware Backdoors
Exploit
253

FIG. 38

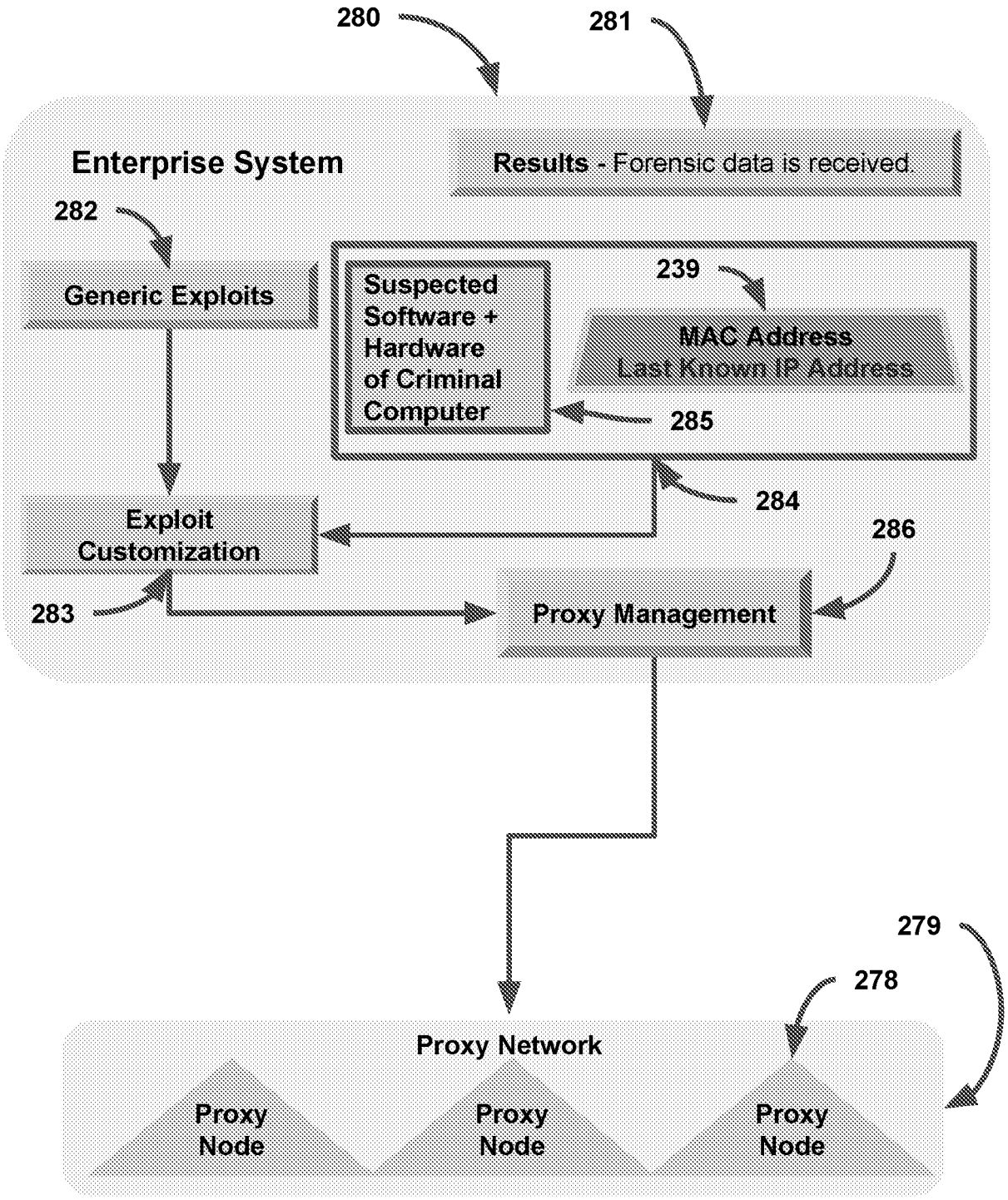

280
281
Enterprise System
Results - Forensic data is received
282
Generic Exploits
Suspected Software + Hardware of Criminal Computer
239
MAC Address
Last Known IP Address
285
284
Exploit Customization
286
283
Proxy Management
279
278
Proxy Network
Proxy Node
Proxy Node
Proxy Node

FIG. 39

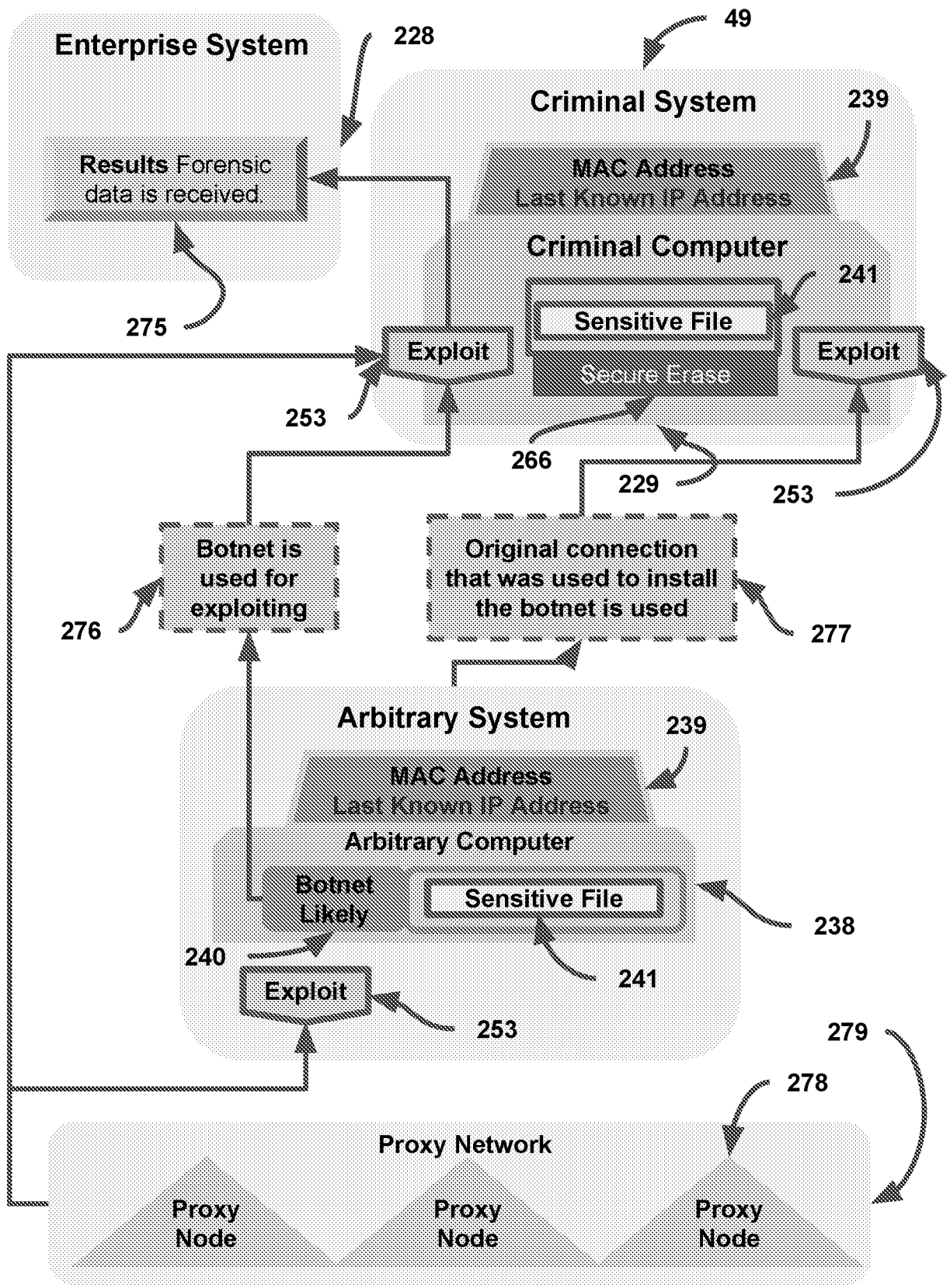

Enterprise System
228
49
Criminal System
239
Results Forensic data is received
MAC Address
Last Known IP Address
Criminal Computer
241
275
Sensitive File
Secure Erase
Exploit
Exploit
253
266
229
253
Botnet is used for exploiting
Original connection that was used to install the botnet is used
276
277
Arbitrary System
239
MAC Address
Last Known IP Address
Arbitrary Computer
Botnet Likely
Sensitive File
238
240
241
Exploit
253
279
278
Proxy Network
Proxy Node
Proxy Node
Proxy Node

FIG. 40

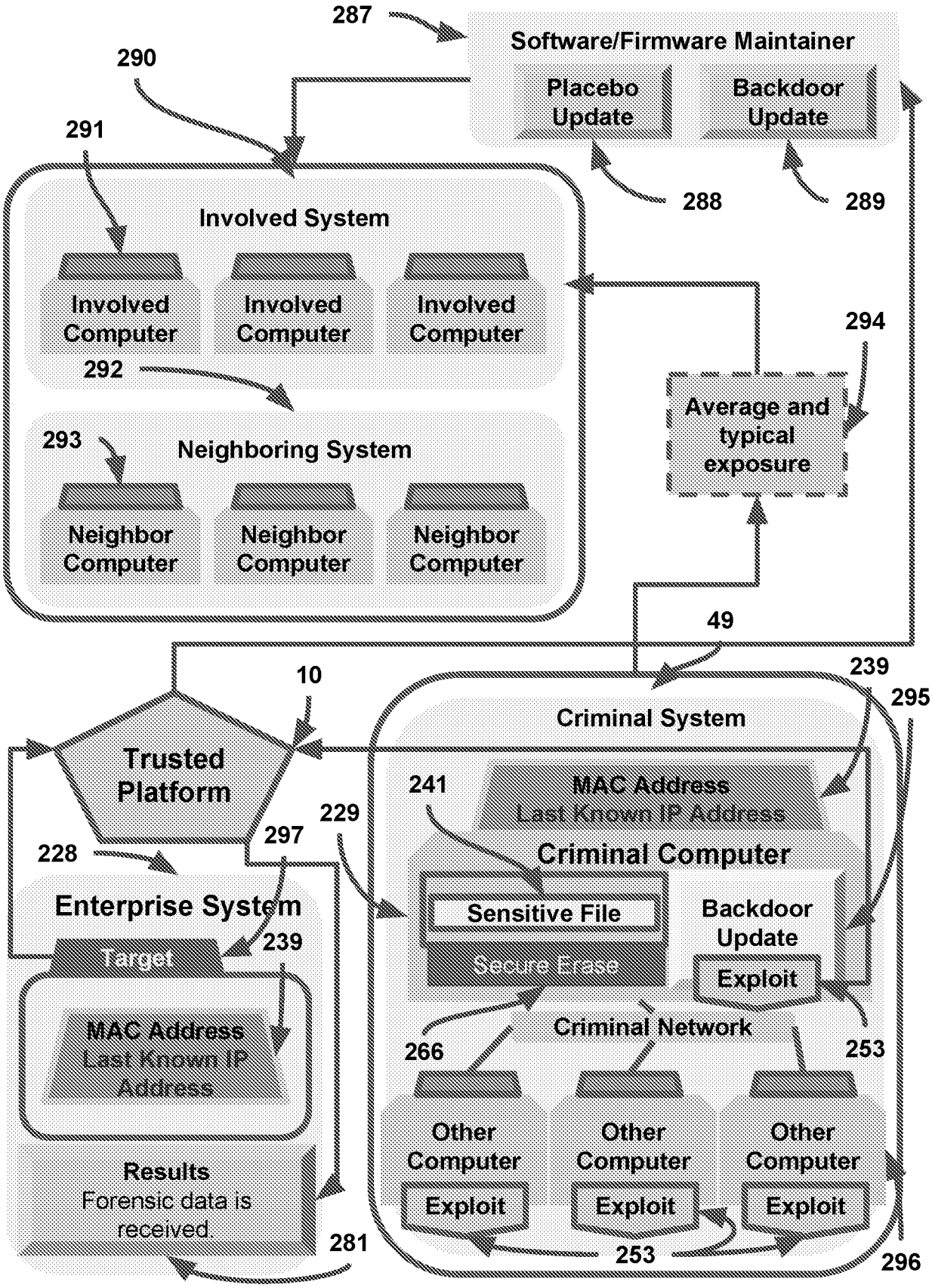

287
Software/Firmware Maintainer
290
Placebo Update
Backdoor Update
291
288
289
Involved System
Involved Computer
Involved Computer
Involved Computer
294
292
Average and typical exposure
293
Neighboring System
Neighbor Computer
Neighbor Computer
Neighbor Computer
49
10
239
295
Trusted Platform
Criminal System
241
MAC Address
Last Known IP Address
229
297
Criminal Computer
228
Enterprise System
Sensitive File
Backdoor Update
Secure Erase
Exploit
239
Target
MAC Address
Last Known IP Address
Criminal Network
266
253
Other Computer
Other Computer
Other Computer
Exploit
Exploit
Exploit
Results
Forensic data is received
281
253
296

FIG. 41

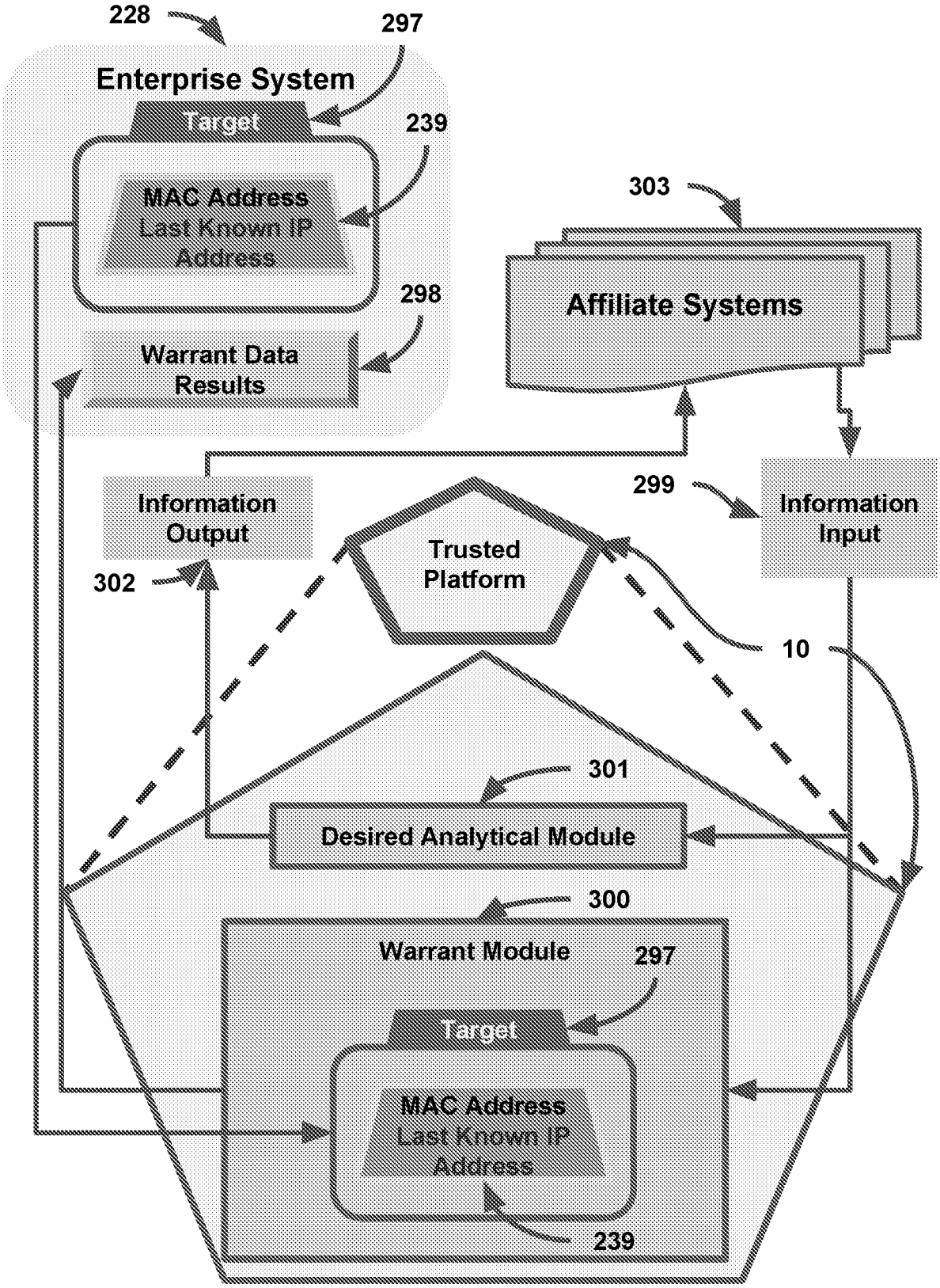

228
297
Enterprise System
Target
239
MAC Address
Last Known IP Address
298
Warrant Data Results
303
Affiliate Systems
299
Information Output
Information Input
302
Trusted Platform
10
301
Desired Analytical Module
300
Warrant Module
297
Target
MAC Address
Last Known IP Address
239

FIG. 42

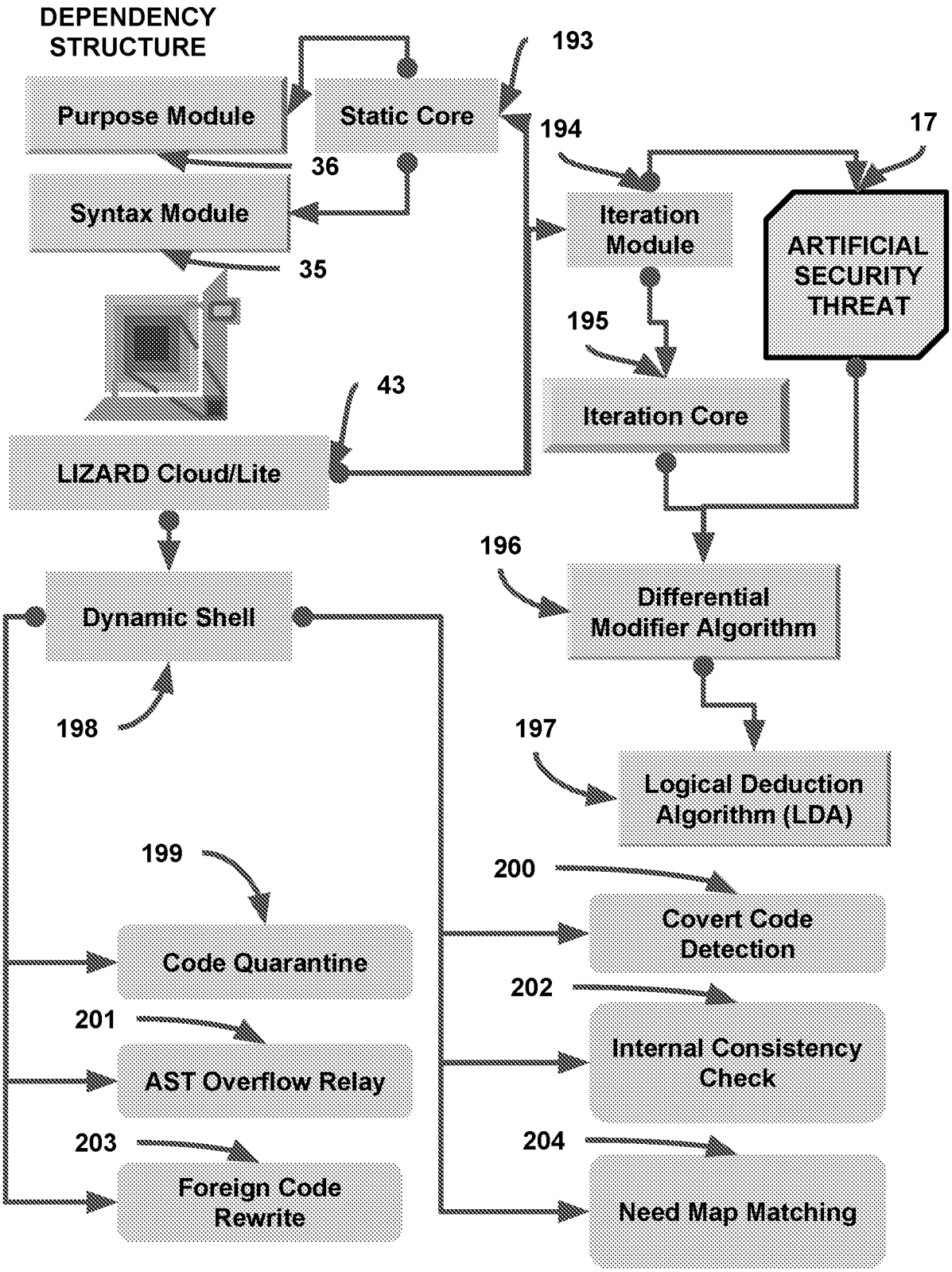

DEPENDENCY STRUCTURE
Purpose Module
Static Core
193
194
17
36
Syntax Module
Iteration Module
ARTIFICIAL SECURITY THREAT
35
195
43
Iteration Core
LIZARD Cloud/Lite
196
Dynamic Shell
Differential Modifier Algorithm
198
197
Logical Deduction Algorithm (LDA)
199
200
Covert Code Detection
Code Quarantine
202
201
Internal Consistency Check
AST Overflow Relay
203
204
Foreign Code Rewrite
Need Map Matching

FIG. 43

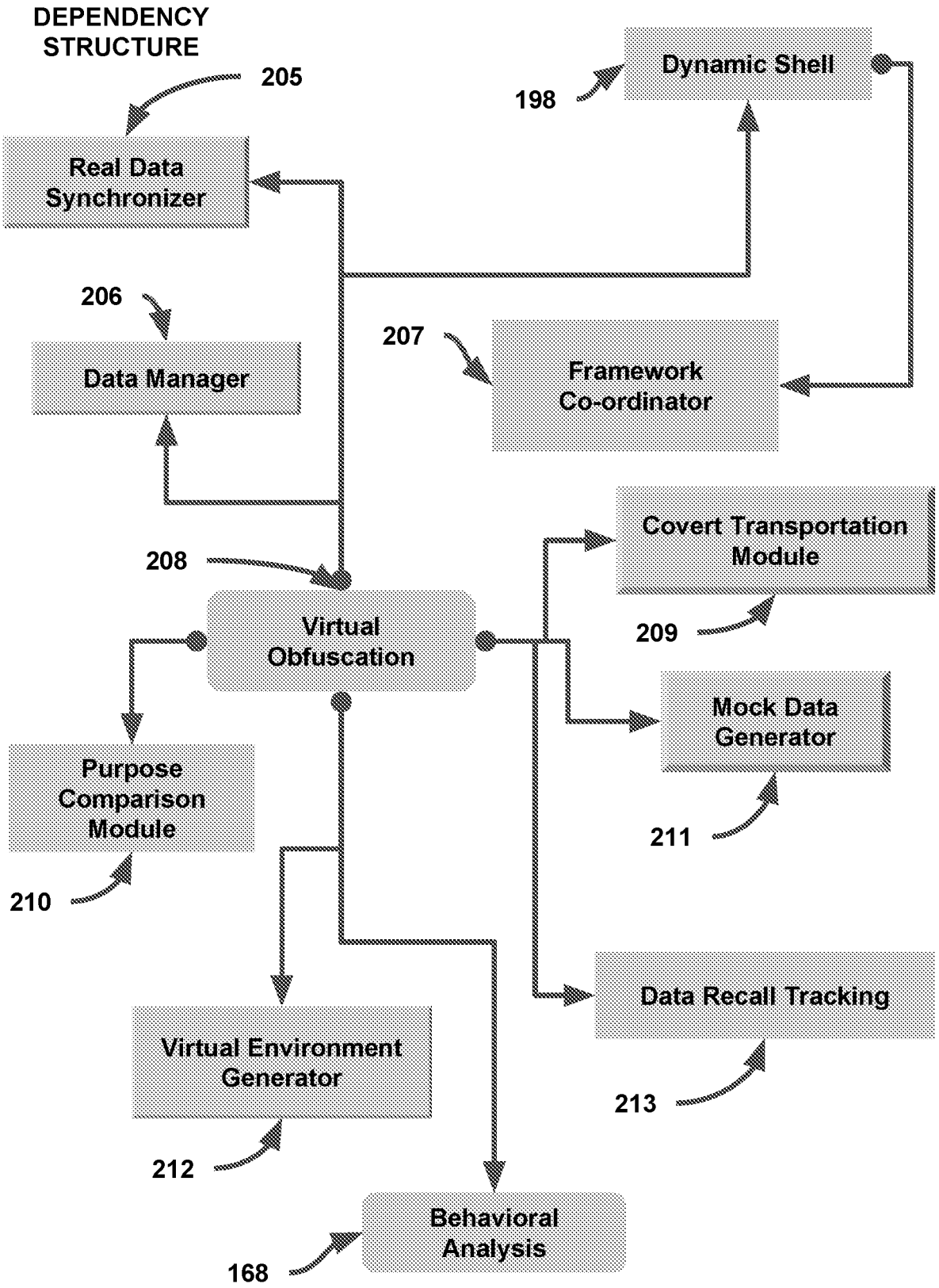

DEPENDENCY STRUCTURE
205
Real Data Synchronizer
198
Dynamic Shell
206
Data Manager
207
Framework Co-ordinator
208
Virtual Obfuscation
Covert Transportation Module
209
Mock Data Generator
211
Purpose Comparison Module
210
Data Recall Tracking
213
Virtual Environment Generator
212
Behavioral Analysis
168

FIG. 44

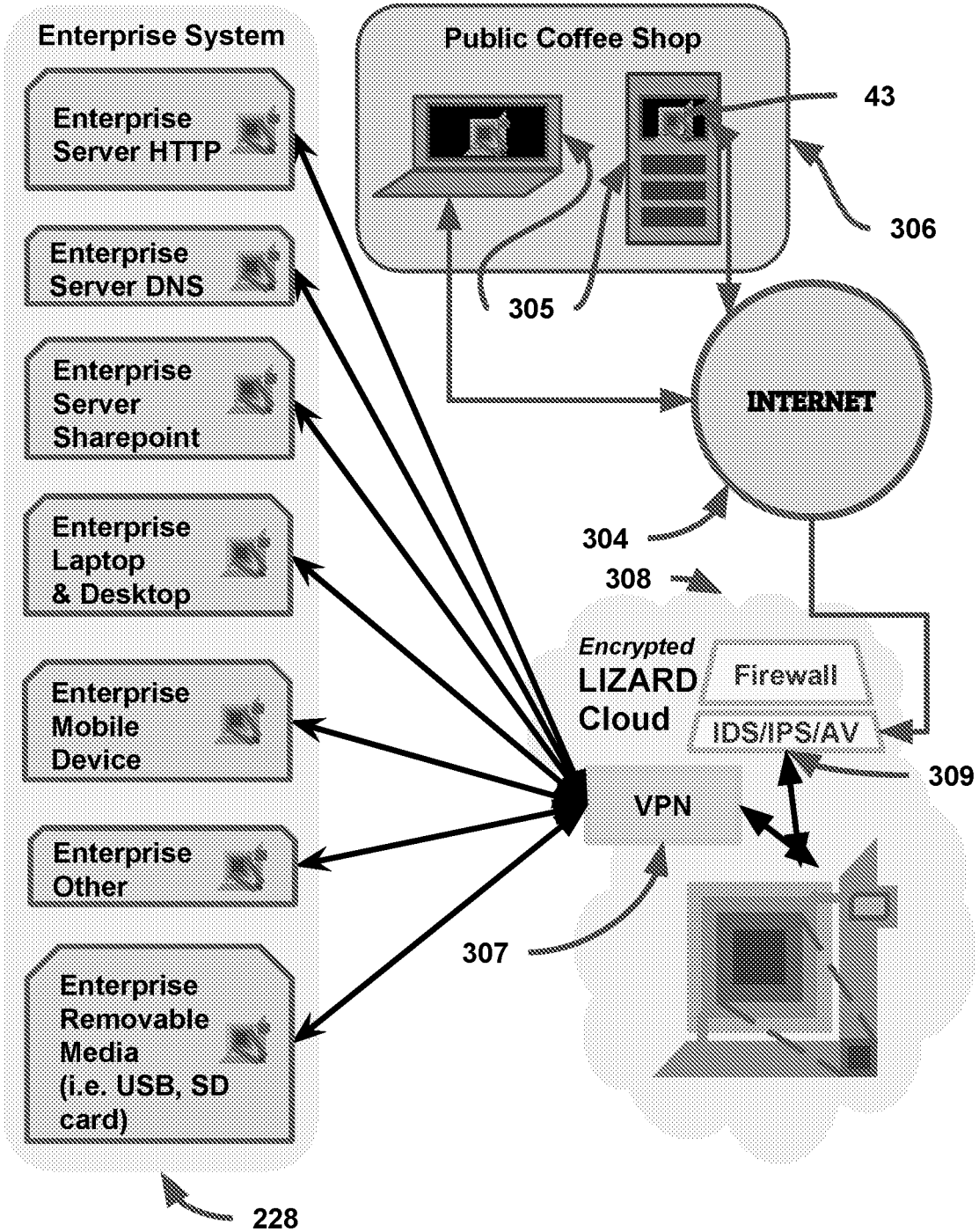

Enterprise System
Enterprise Server HTTP
Enterprise Server DNS
Enterprise Server Sharepoint
Enterprise Laptop & Desktop
Enterprise Mobile Device
Enterprise Other
Enterprise Removable Media (i.e. USB, SD card)
228
Public Coffee Shop
43
306
305
INTERNET
304
308
Encrypted
LIZARD Cloud
Firewall
IDS/IPS/AV
309
VPN
307

FIG. 45

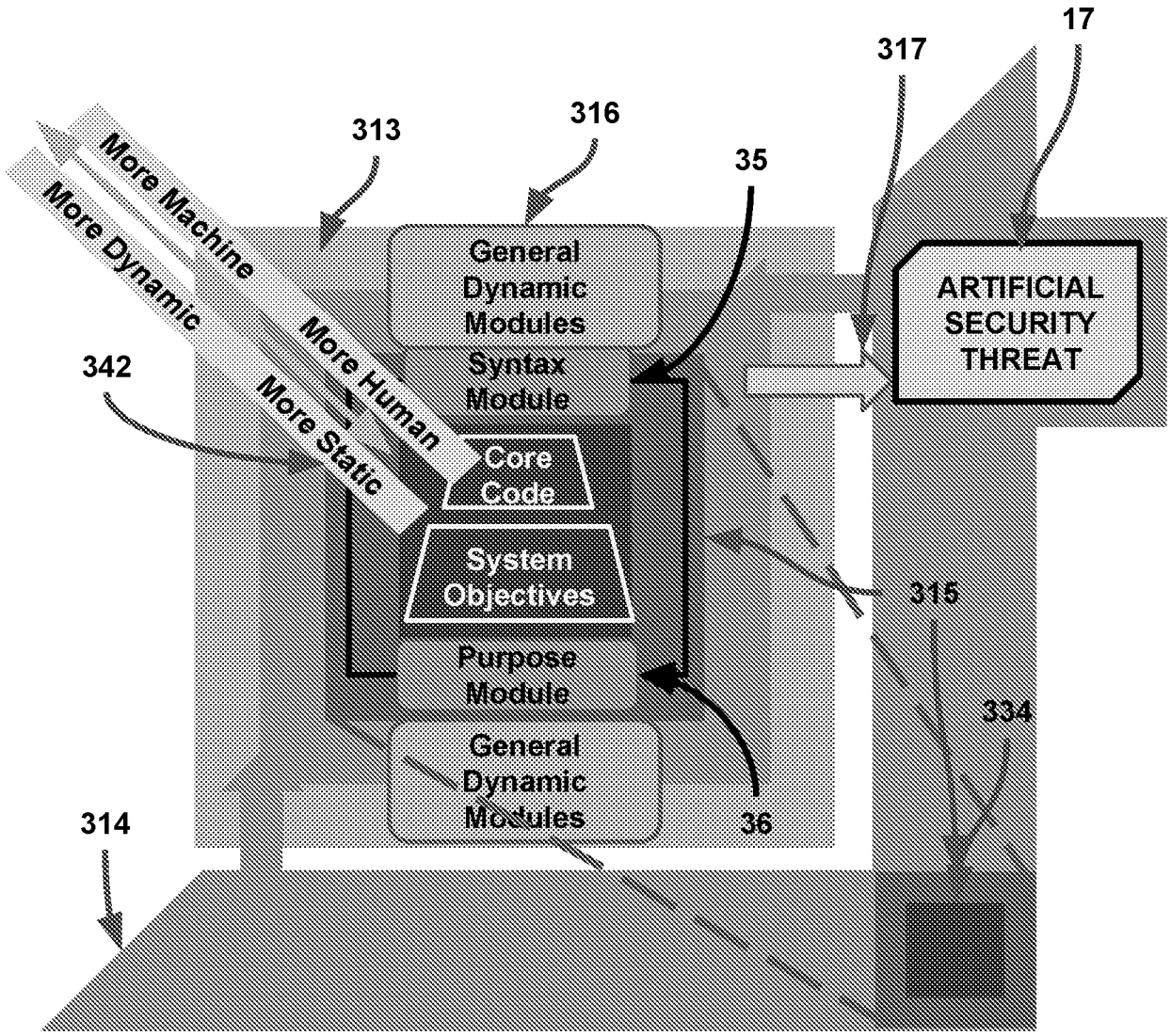

17
317
313
316
35
More Machine
More Dynamic
More Human
More Static
General Dynamic Modules
Syntax Module
Core Code
System Objectives
Purpose Module
General Dynamic Modules
ARTIFICIAL SECURITY THREAT
342
315
334
314
36

FIG. 46

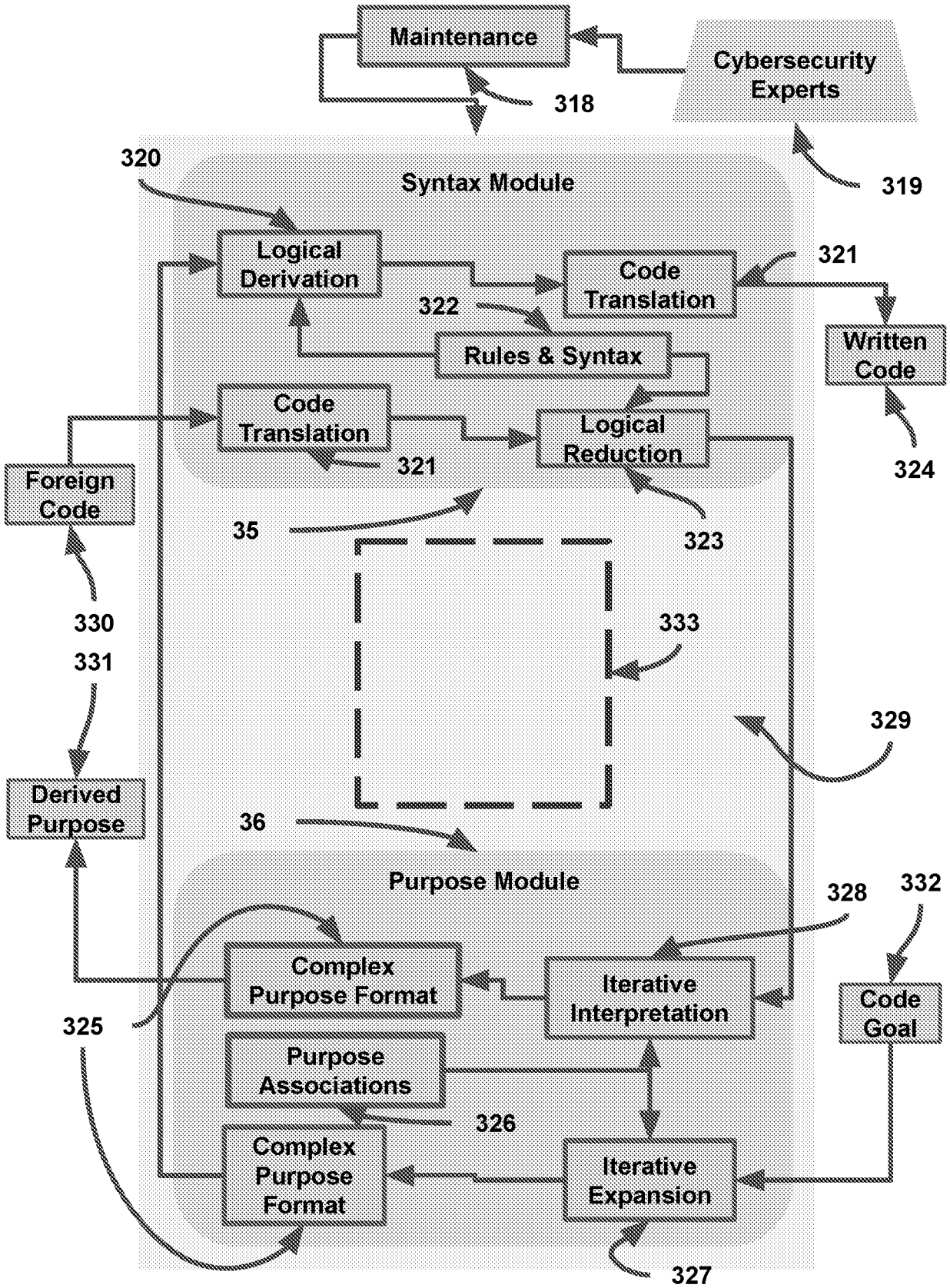

Maintenance
Cybersecurity Experts
318
319
320
Syntax Module
Logical Derivation
Code Translation
321
322
Written Code
Rules & Syntax
Code Translation
Logical Reduction
321
324
Foreign Code
35
323
330
333
331
329
Derived Purpose
36
Purpose Module
328
332
Complex Purpose Format
Iterative Interpretation
Code Goal
325
Purpose Associations
326
Complex Purpose Format
Iterative Expansion
327

FIG. 47

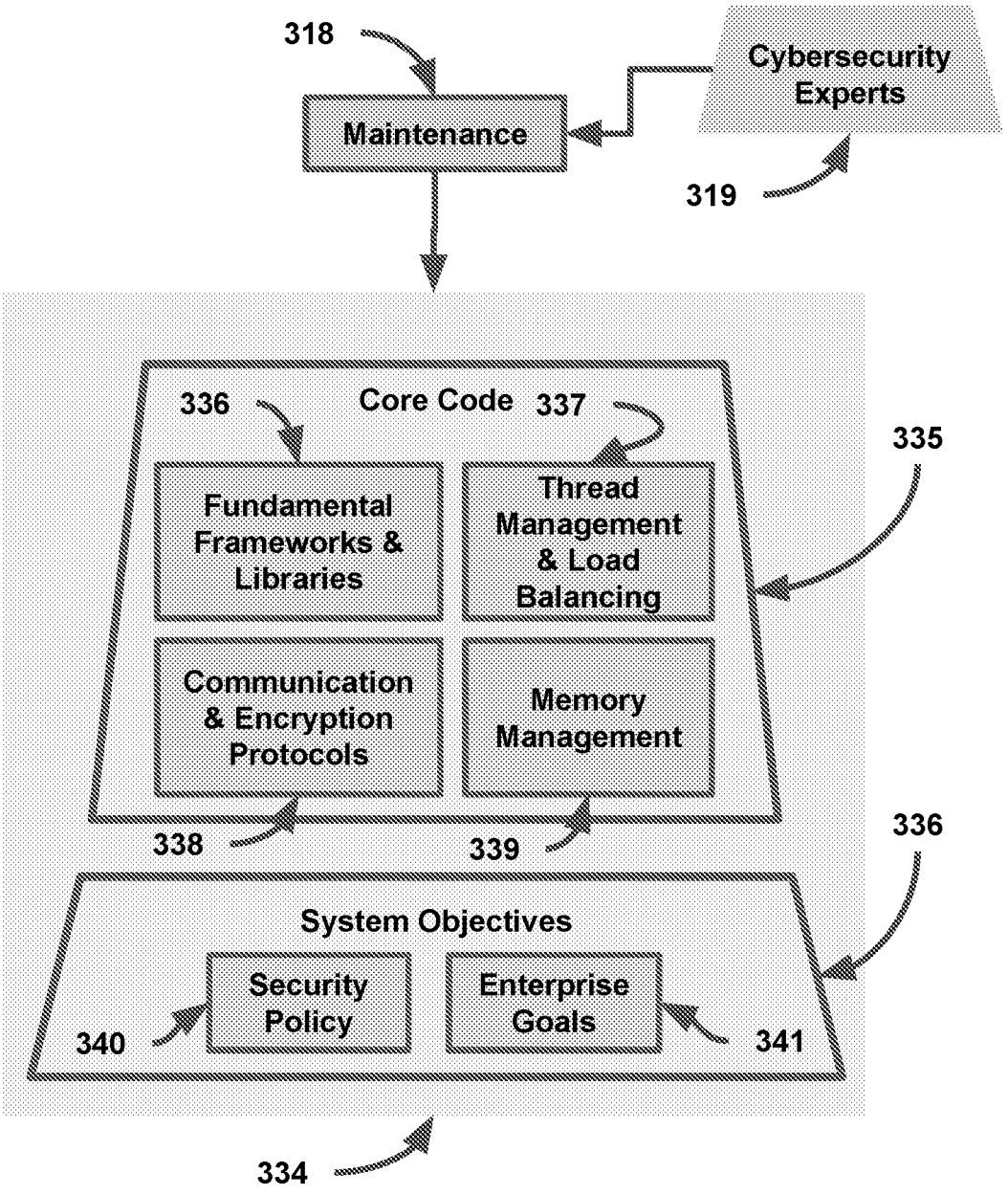

318
Cybersecurity Experts
Maintenance
319
336
Core Code
337
335
Fundamental Frameworks & Libraries
Thread Management & Load Balancing
Communication & Encryption Protocols
Memory Management
338
339
336
System Objectives
Security Policy
Enterprise Goals
340
341
334

FIG. 48

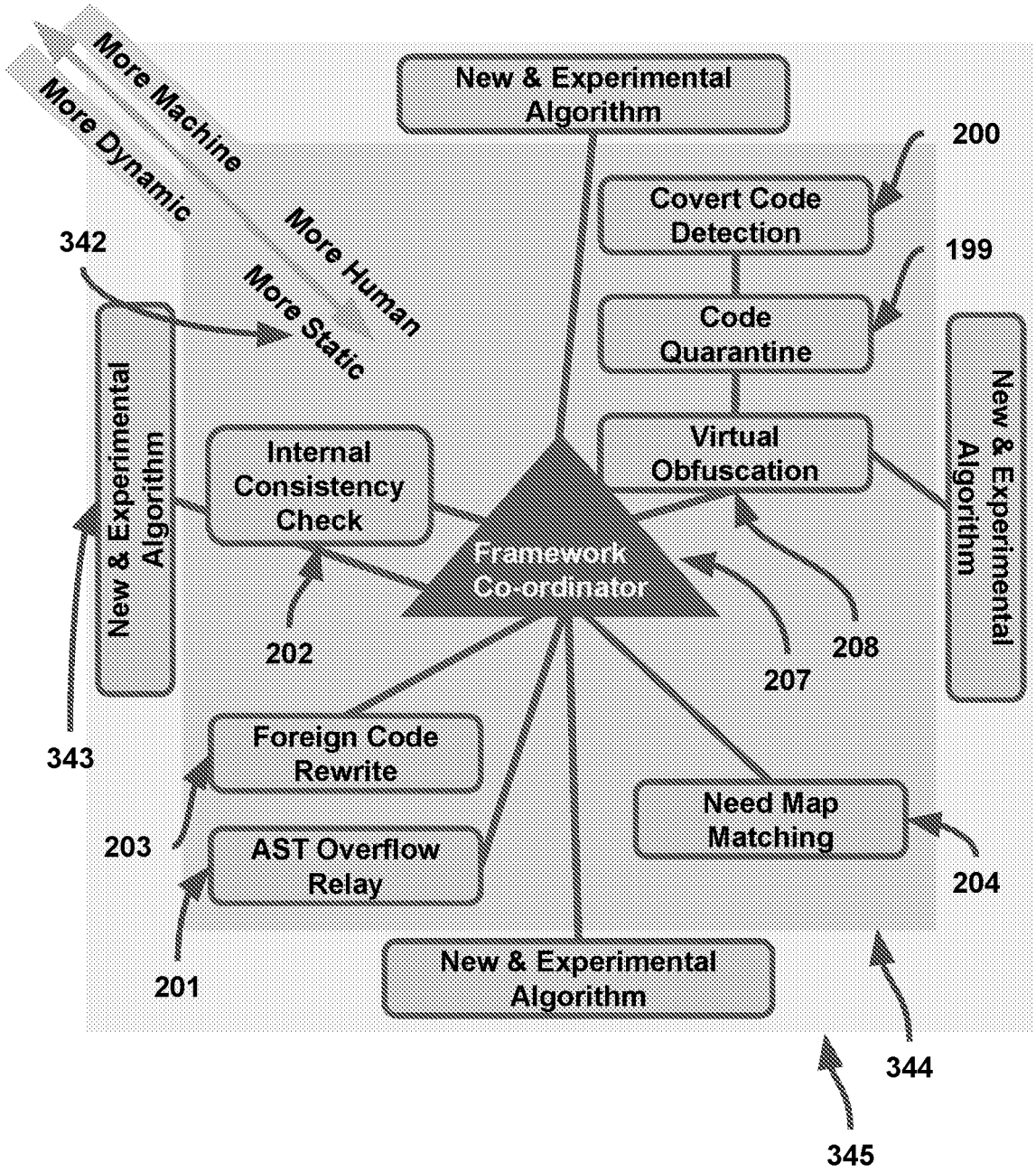

More Machine
More Dynamic
More Human
More Static
New & Experimental Algorithm
200
Covert Code Detection
199
Code Quarantine
Virtual Obfuscation
342
New & Experimental Algorithm
Internal Consistency Check
Framework Co-ordinator
New & Experimental Algorithm
202
207
208
343
Foreign Code Rewrite
203
AST Overflow Relay
Need Map Matching
204
201
New & Experimental Algorithm
344
345

FIG. 49

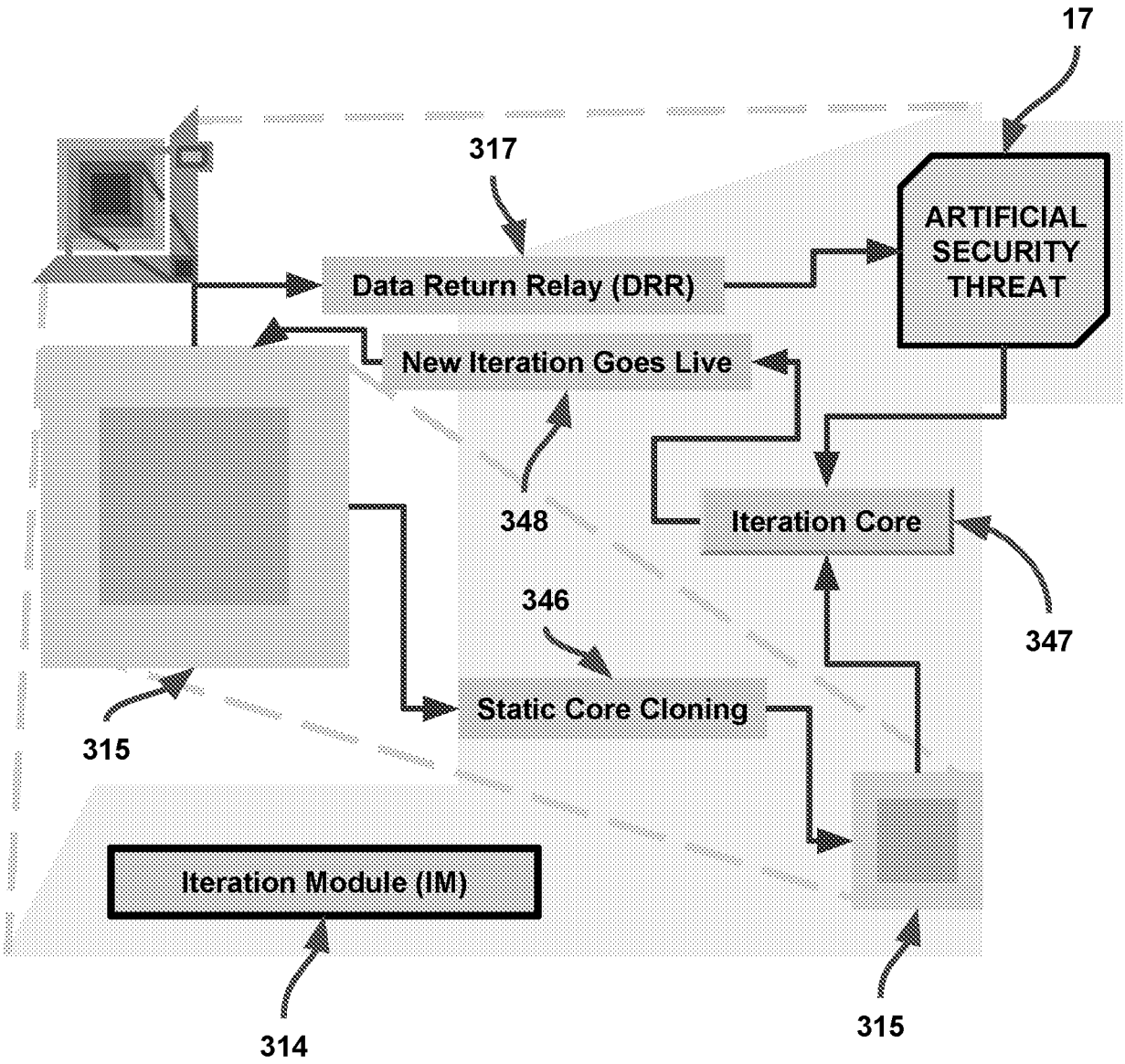

17
317
ARTIFICIAL SECURITY THREAT
Data Return Relay (DRR)
New Iteration Goes Live
348
Iteration Core
347
346
Static Core Cloning
315
Iteration Module (IM)
314
315

FIG. 50

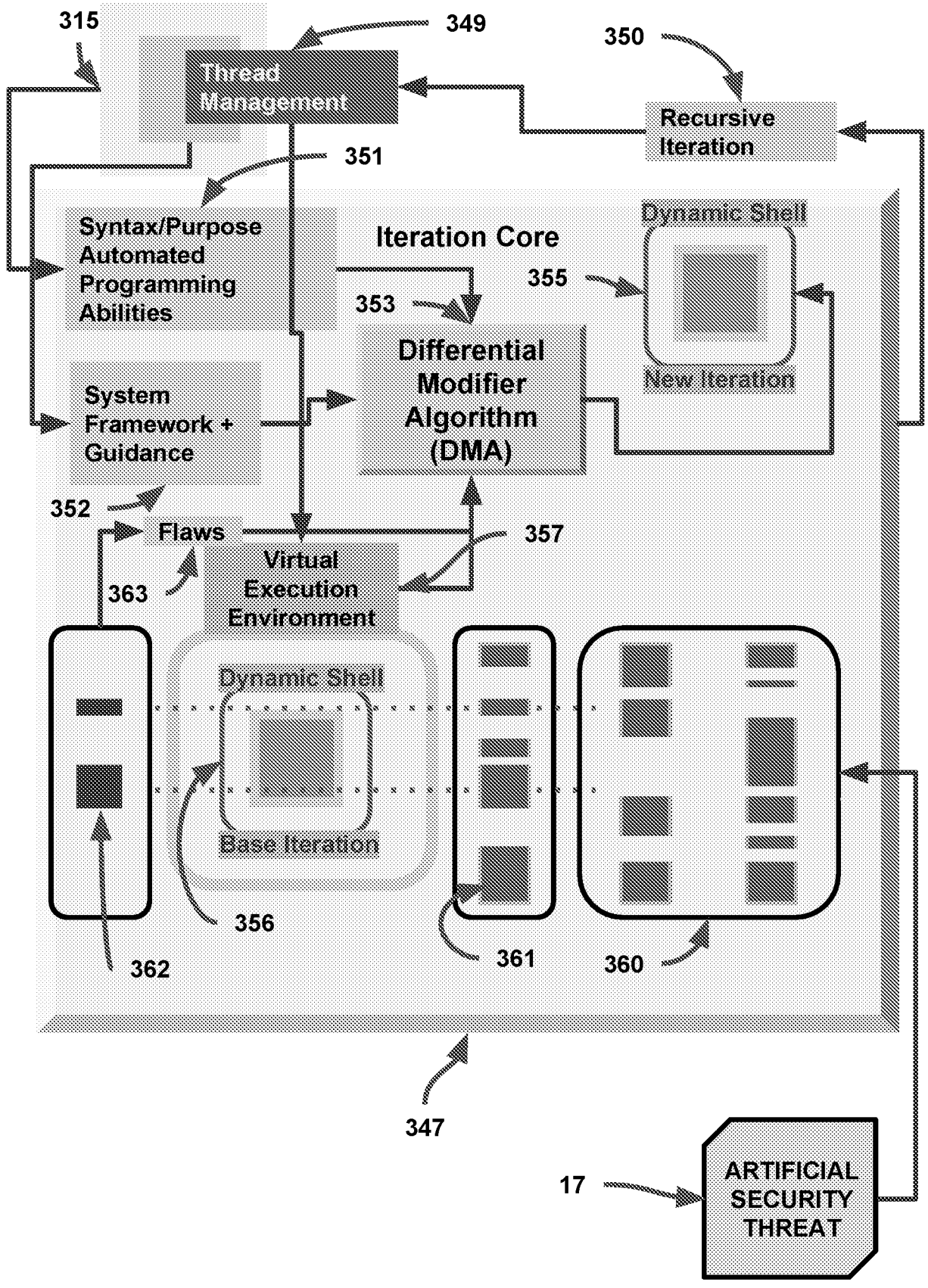

315
349
350
Thread Management
Recursive Iteration
351
Syntax/Purpose Automated Programming Abilities
Iteration Core
Dynamic Shell
355
353
Differential Modifier Algorithm (DMA)
New Iteration
System Framework + Guidance
352
Flaws
357
Virtual Execution Environment
363
Dynamic Shell
Base Iteration
356
362
361
360
347
17
ARTIFICIAL SECURITY THREAT

FIG. 51

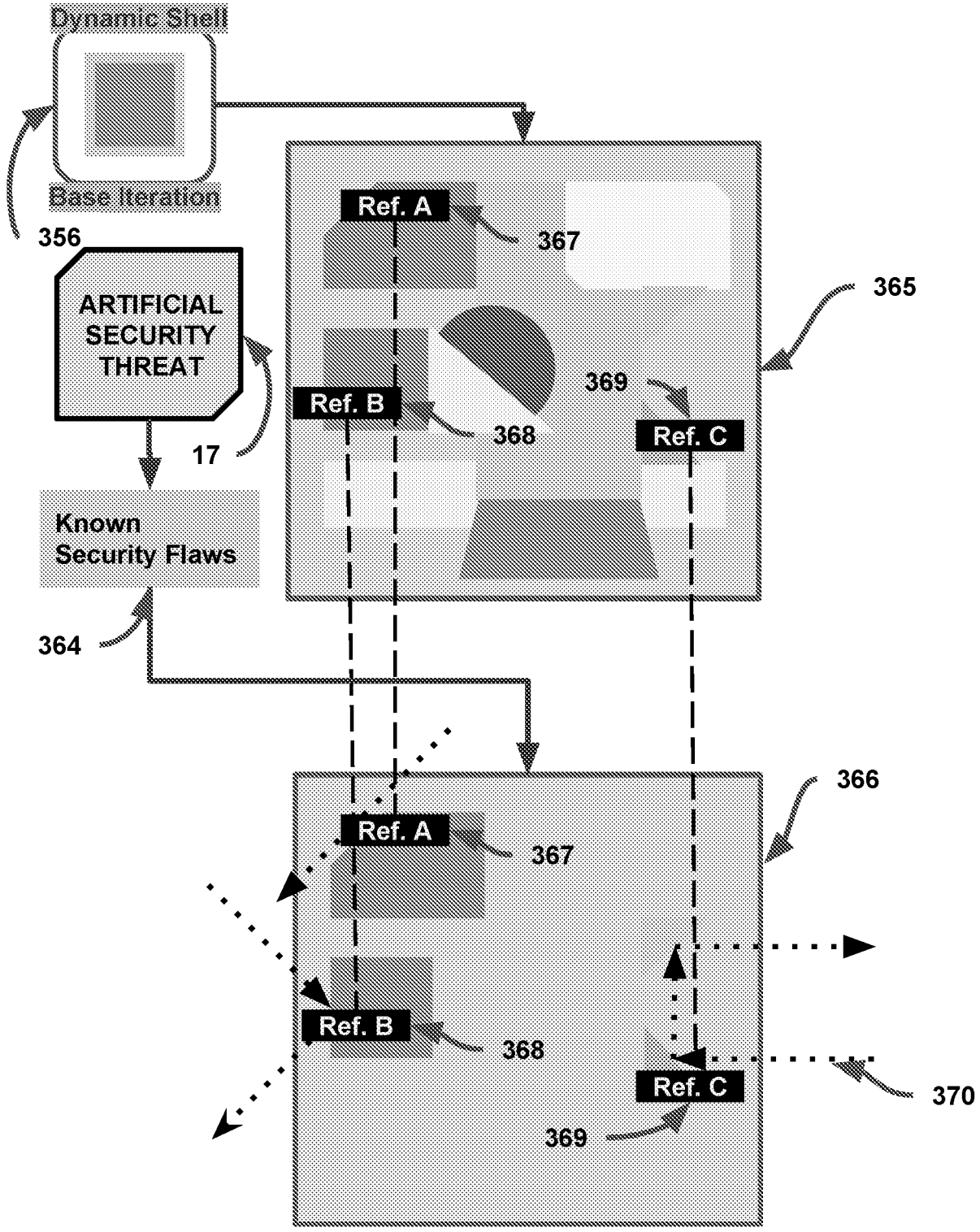

Dynamic Shell
Base Iteration
356
ARTIFICIAL SECURITY THREAT
17
Known Security Flaws
364
Ref. A
367
365
Ref. B
368
369
Ref. C
366
Ref. A
367
Ref. B
368
Ref. C
369
370

FIG. 52

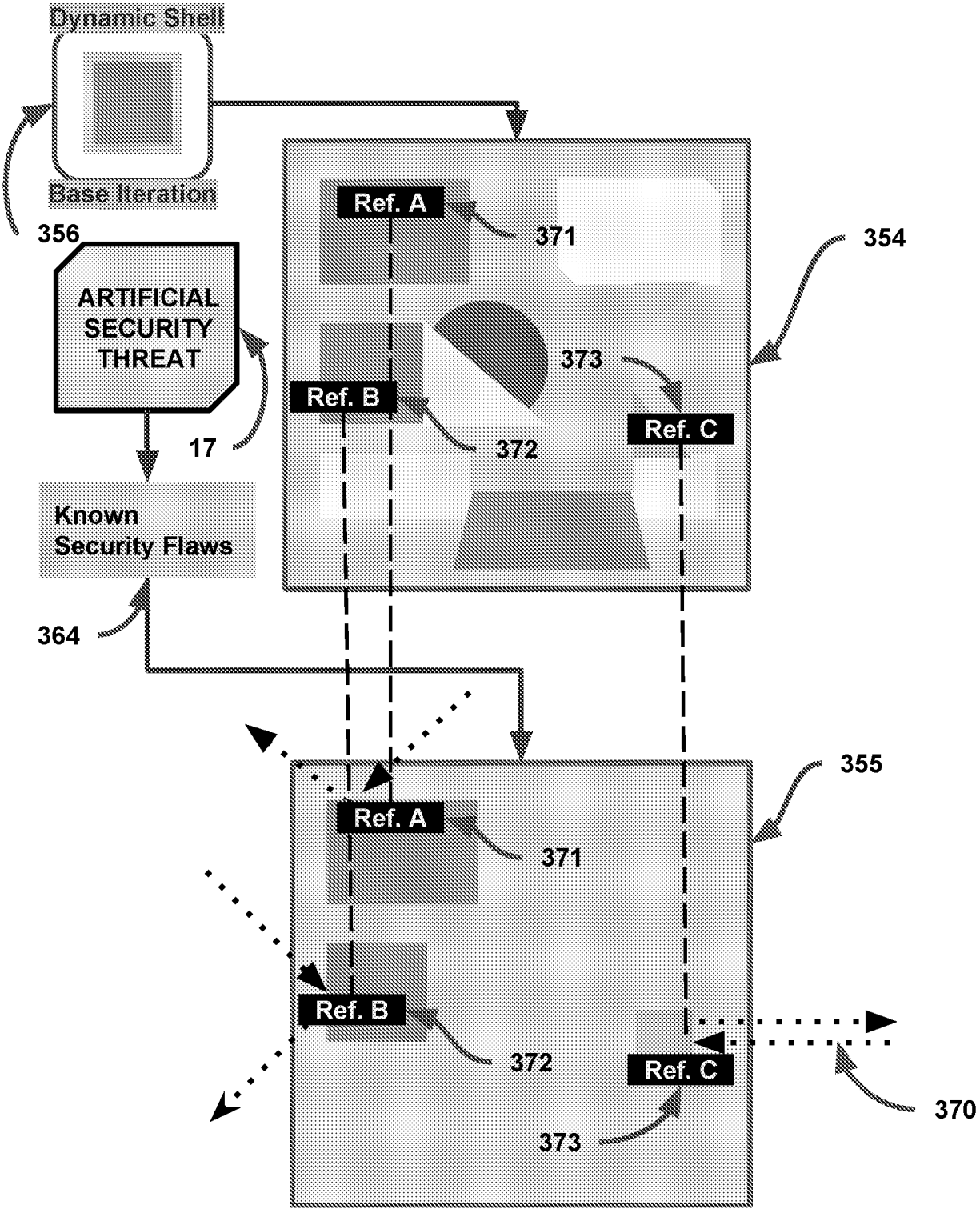

Dynamic Shell
Base Iteration
356
ARTIFICIAL SECURITY THREAT
17
Known Security Flaws
364
Ref. A
371
354
373
Ref. B
372
Ref. C
355
Ref. A
371
Ref. B
372
Ref. C
373
370

FIG. 53

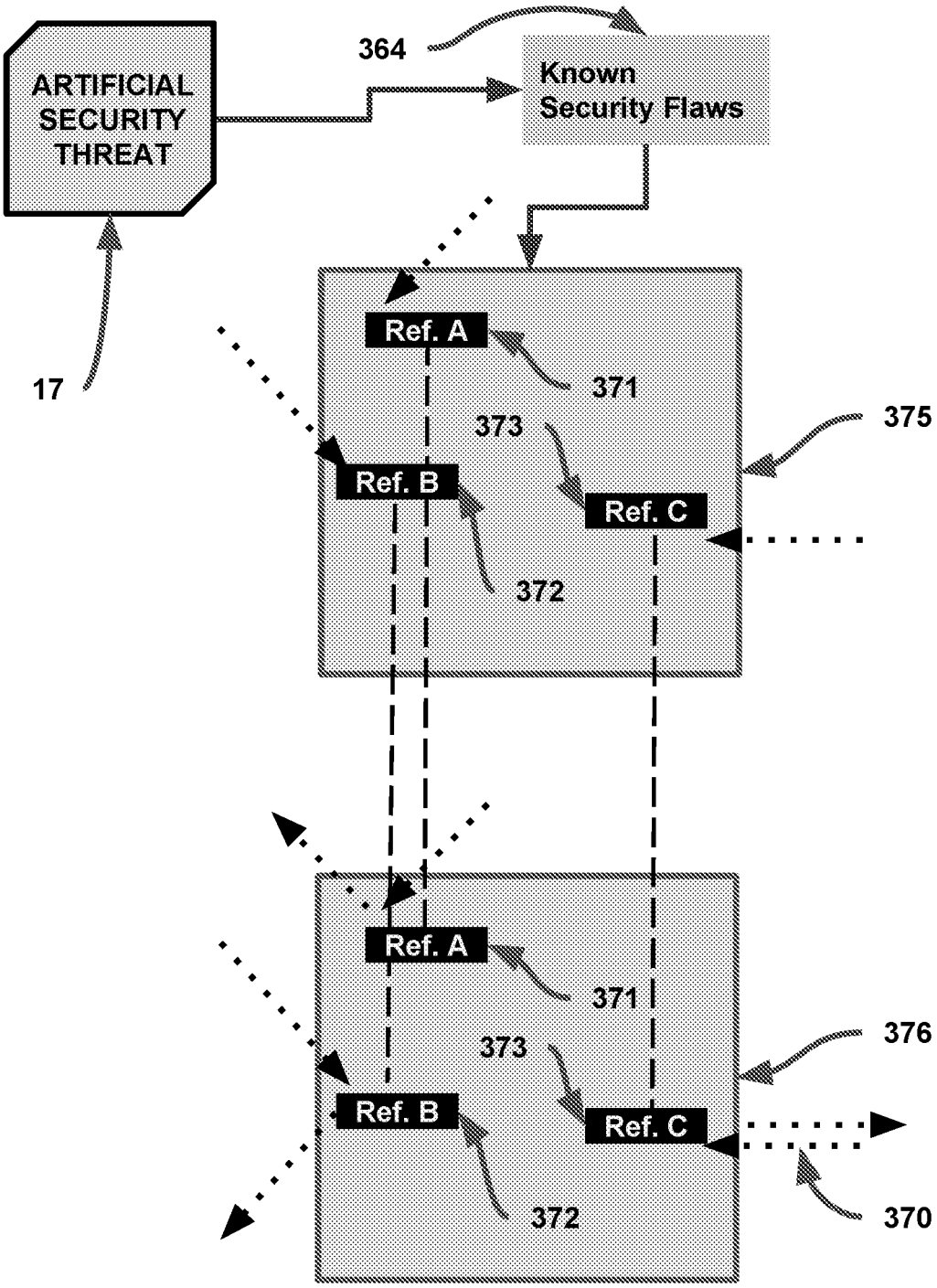

ARTIFICIAL SECURITY THREAT
364
Known Security Flaws
17
Ref. A
371
373
375
Ref. B
Ref. C
372
Ref. A
371
373
376
Ref. B
Ref. C
372
370

FIG. 54

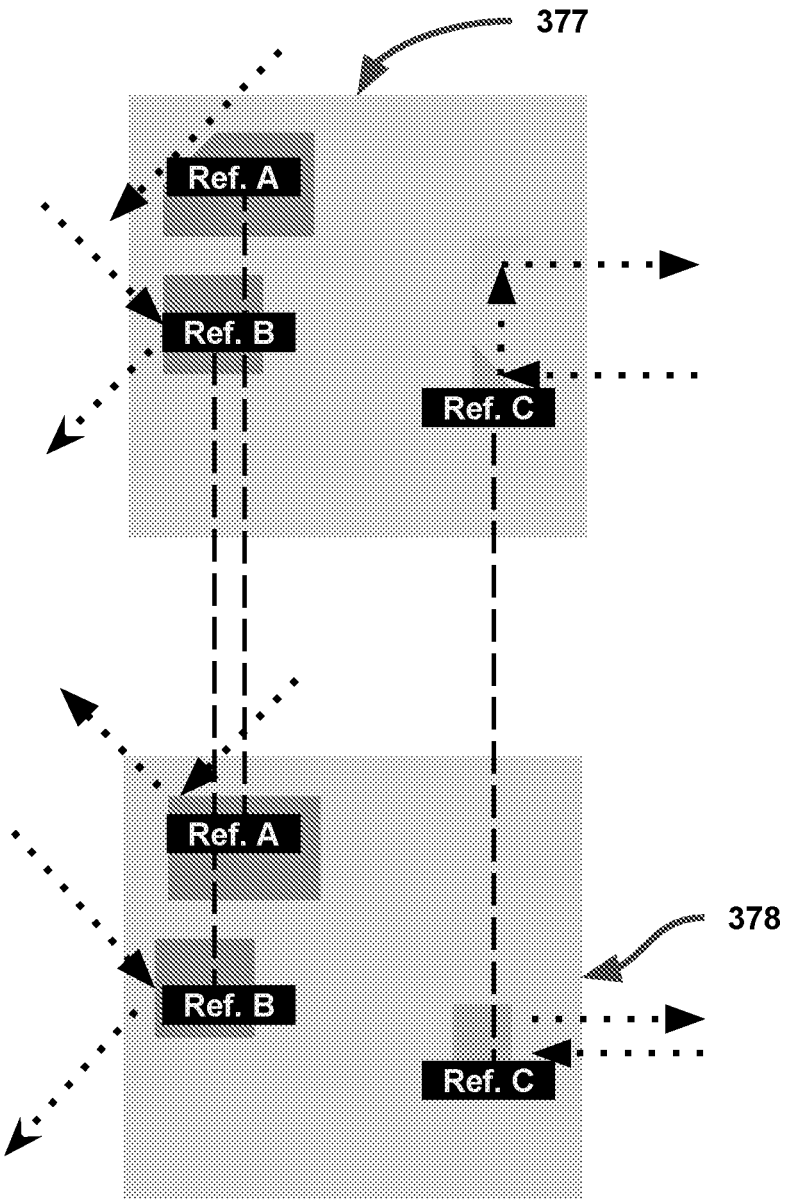


FIG. 55

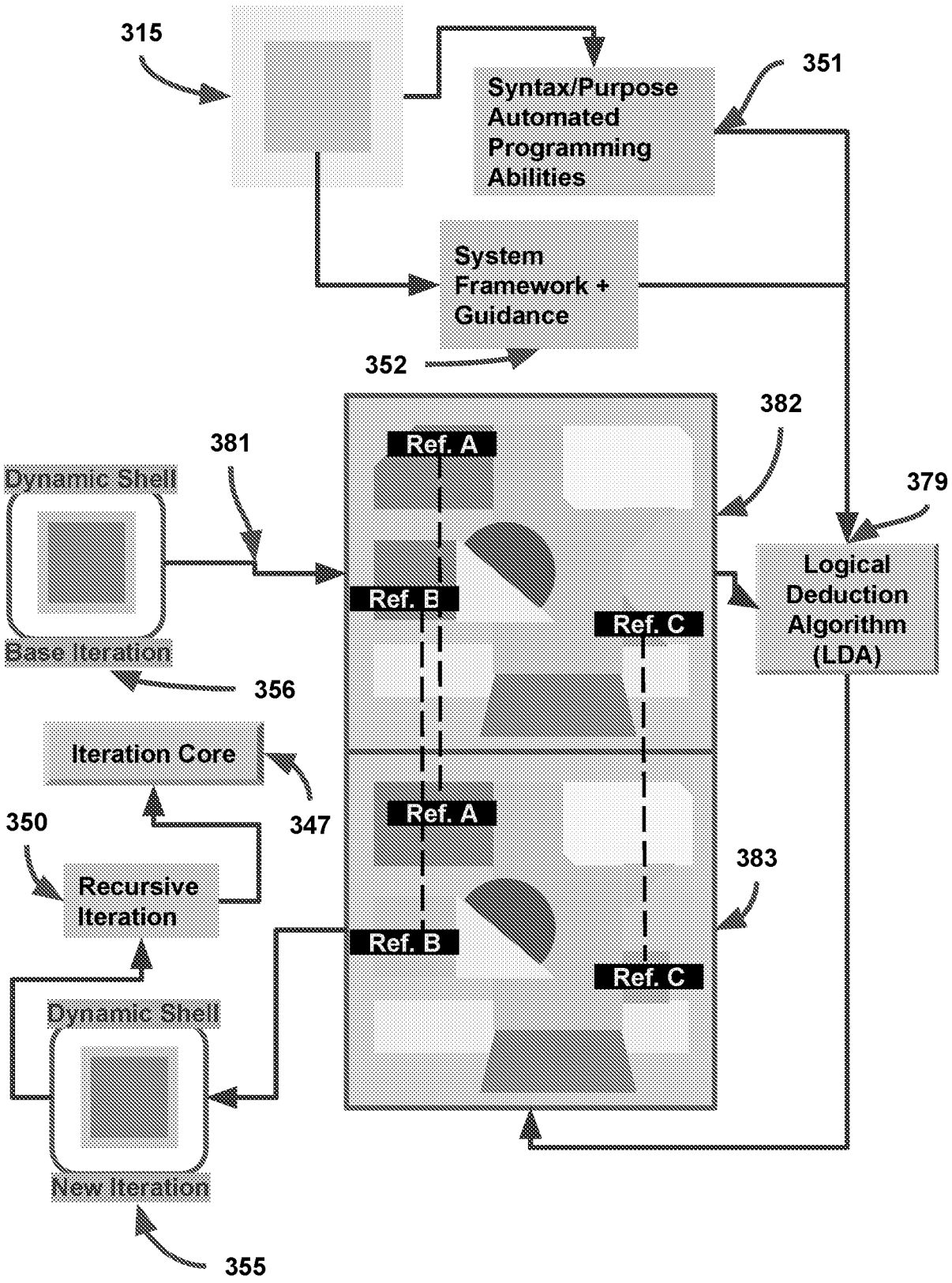

315
Syntax/Purpose Automated Programming Abilities
351
System Framework + Guidance
352
382
381
Ref. A
379
Dynamic Shell
Ref. B
Ref. C
Logical Deduction Algorithm (LDA)
Base Iteration
356
Iteration Core
347
Ref. A
350
383
Recursive Iteration
Ref. B
Ref. C
Dynamic Shell
New Iteration
355

FIG. 56

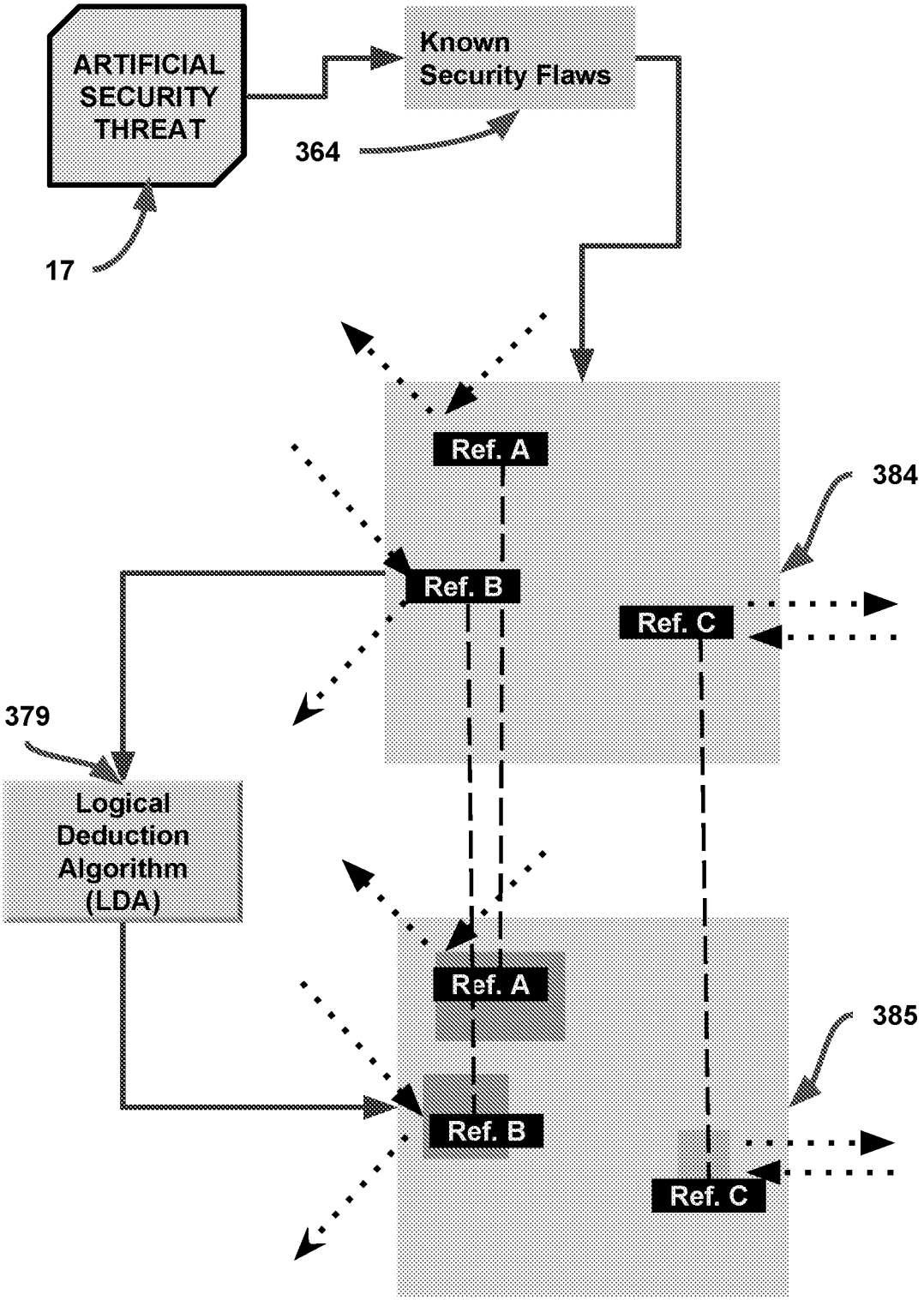

ARTIFICIAL SECURITY THREAT
17
Known Security Flaws
364
Ref. A
Ref. B
Ref. C
384
379
Logical Deduction Algorithm (LDA)
Ref. A
Ref. B
Ref. C
385

FIG. 57

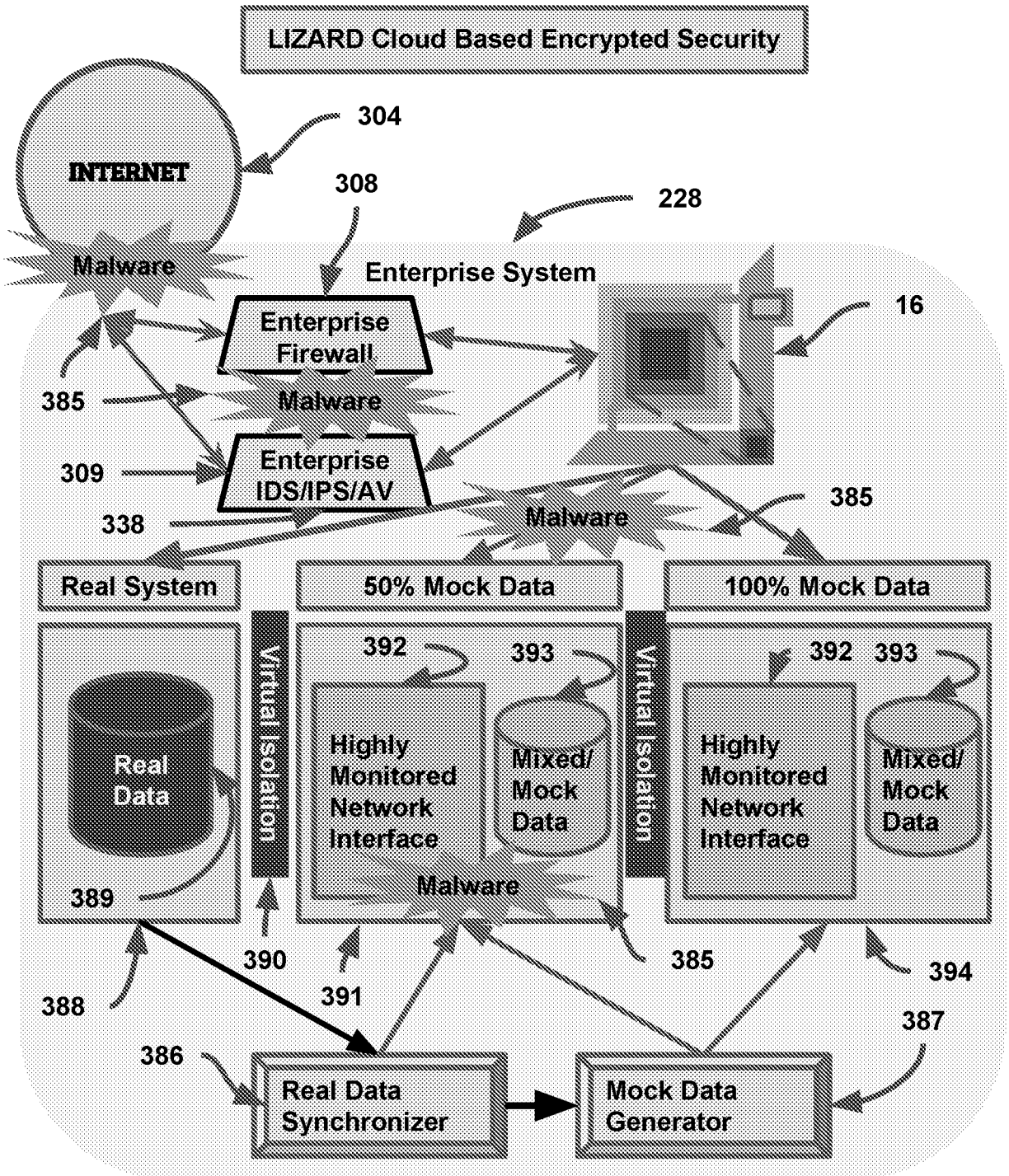

LIZARD Cloud Based Encrypted Security
INTERNET
304
308
228
Malware
Enterprise System
Enterprise Firewall
16
385
Malware
309
Enterprise IDS/IPS/AV
385
338
Malware
Real System
50% Mock Data
100% Mock Data
Virtual Isolation
Virtual Isolation
392
393
392
393
Real Data
Highly Monitored Network Interface
Mixed/ Mock Data
Highly Monitored Network Interface
Mixed/ Mock Data
Malware
389
390
391
385
394
388
387
386
Real Data Synchronizer
Mock Data Generator

FIG. 58

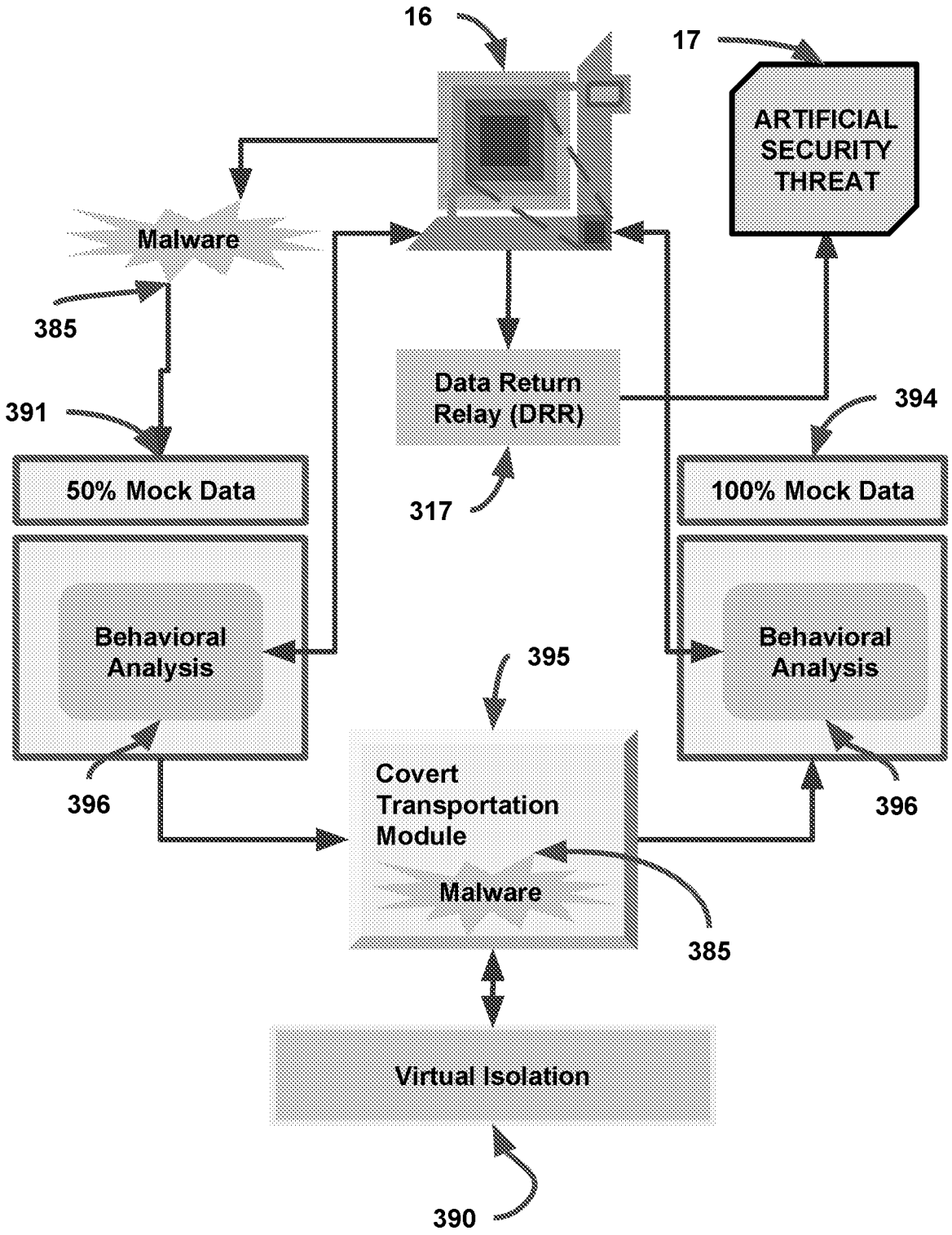

16
17
ARTIFICIAL SECURITY THREAT
Malware
385
391
Data Return Relay (DRR)
394
317
50% Mock Data
100% Mock Data
Behavioral Analysis
Behavioral Analysis
395
Covert Transportation Module
Malware
396
396
385
Virtual Isolation
390

FIG. 59

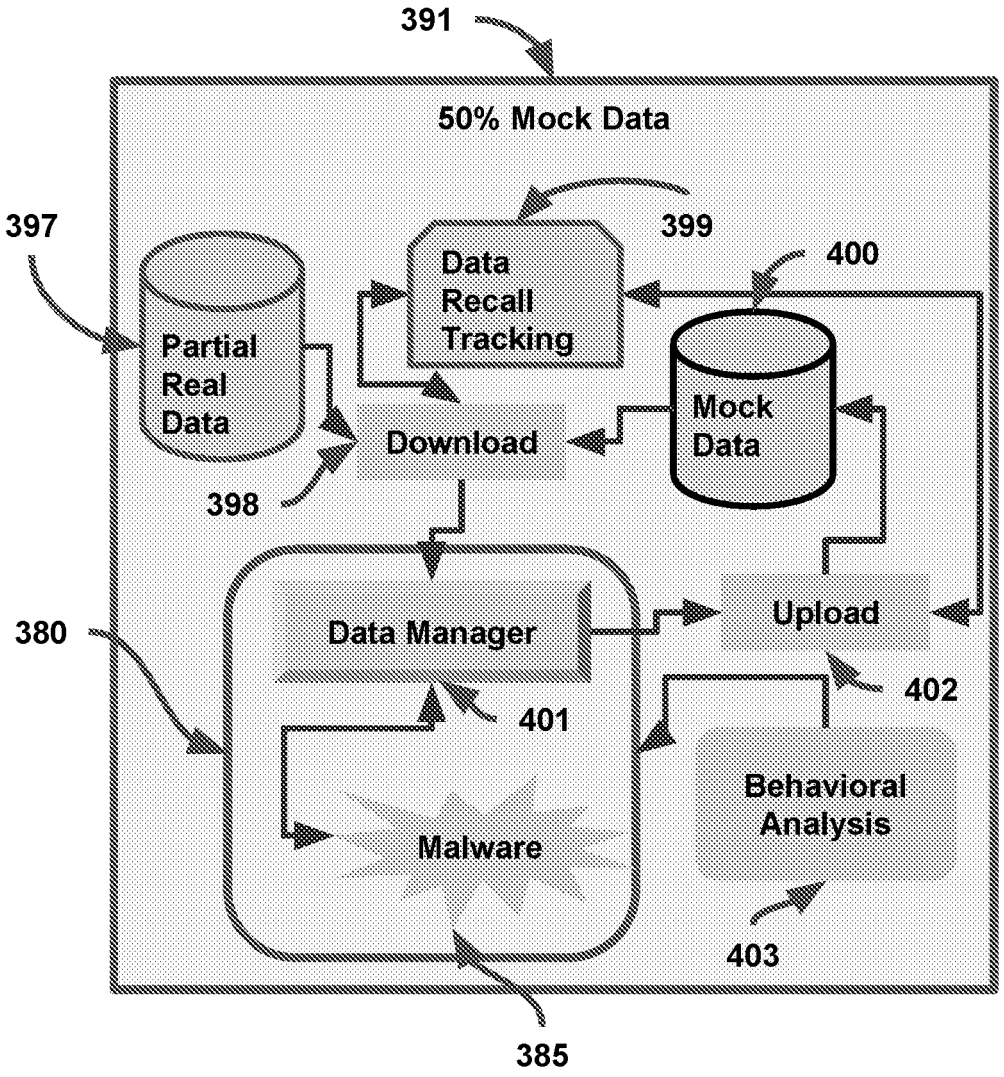

391
50% Mock Data
397
399
400
Data Recall Tracking
Partial Real Data
Mock Data
Download
398
380
Data Manager
Upload
402
401
Behavioral Analysis
Malware
403
385

FIG. 60

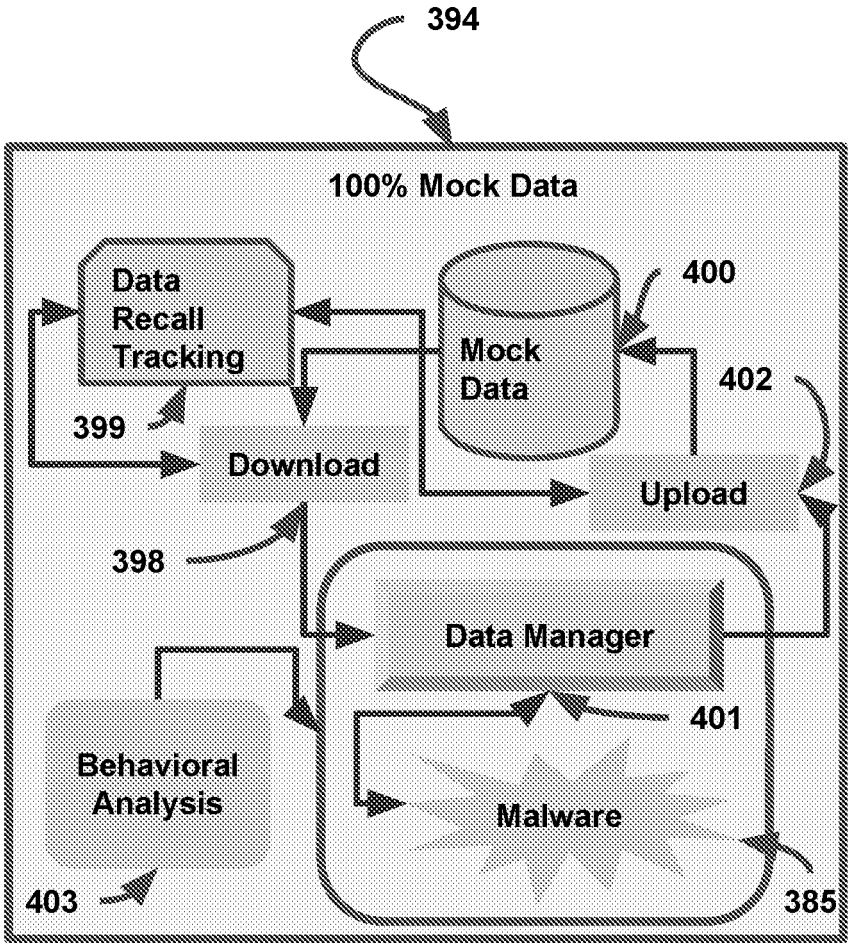

394
100% Mock Data
Data Recall Tracking
399
Download
Mock Data
400
402
Upload
398
Data Manager
401
Behavioral Analysis
Malware
403
385

FIG. 61

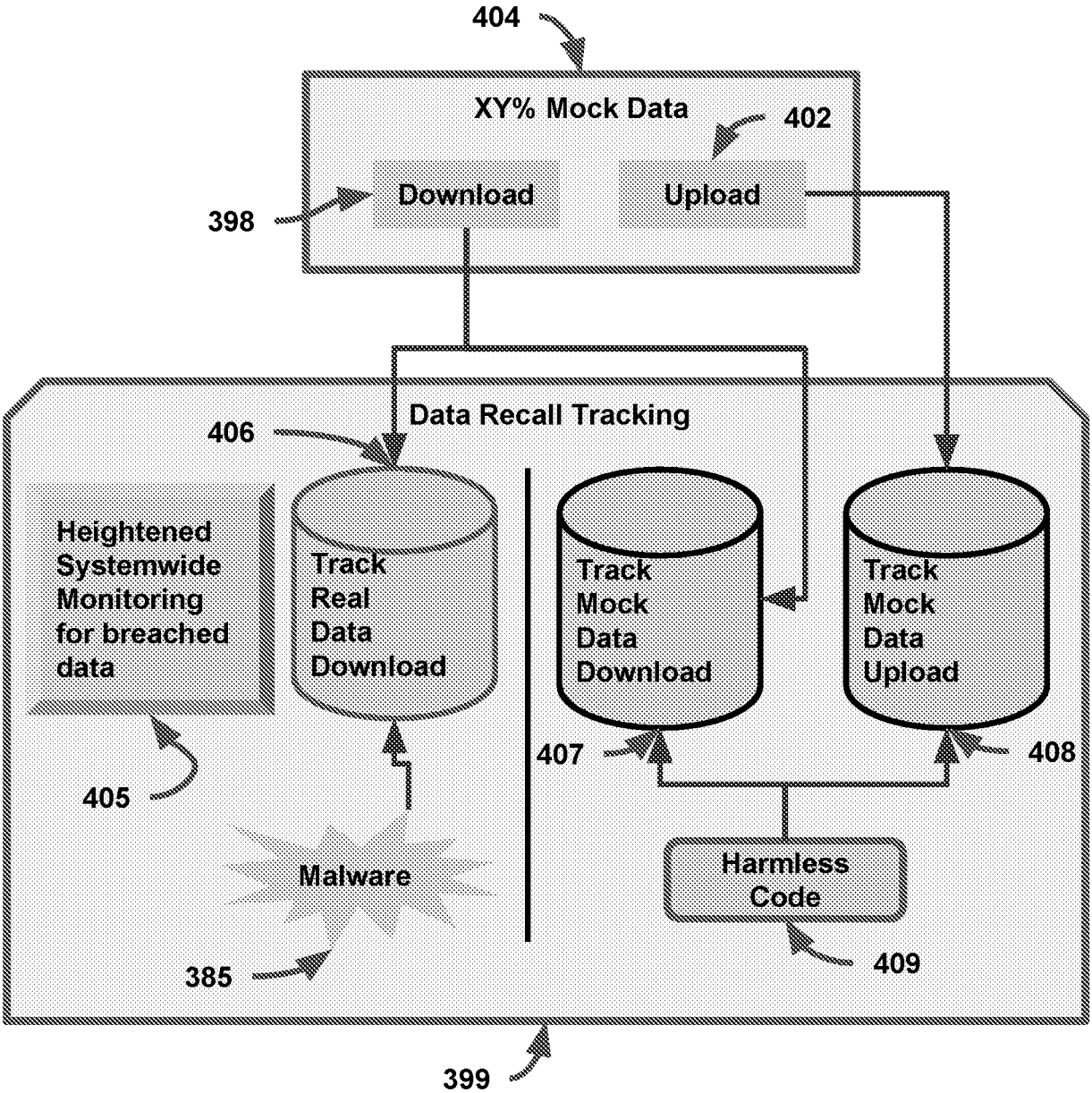

404
XY% Mock Data
402
Download
Upload
398
Data Recall Tracking
406
Heightened Systemwide Monitoring for breached data
Track Real Data Download
Track Mock Data Download
Track Mock Data Upload
405
407
408
Malware
Harmless Code
385
409
399

FIG. 62

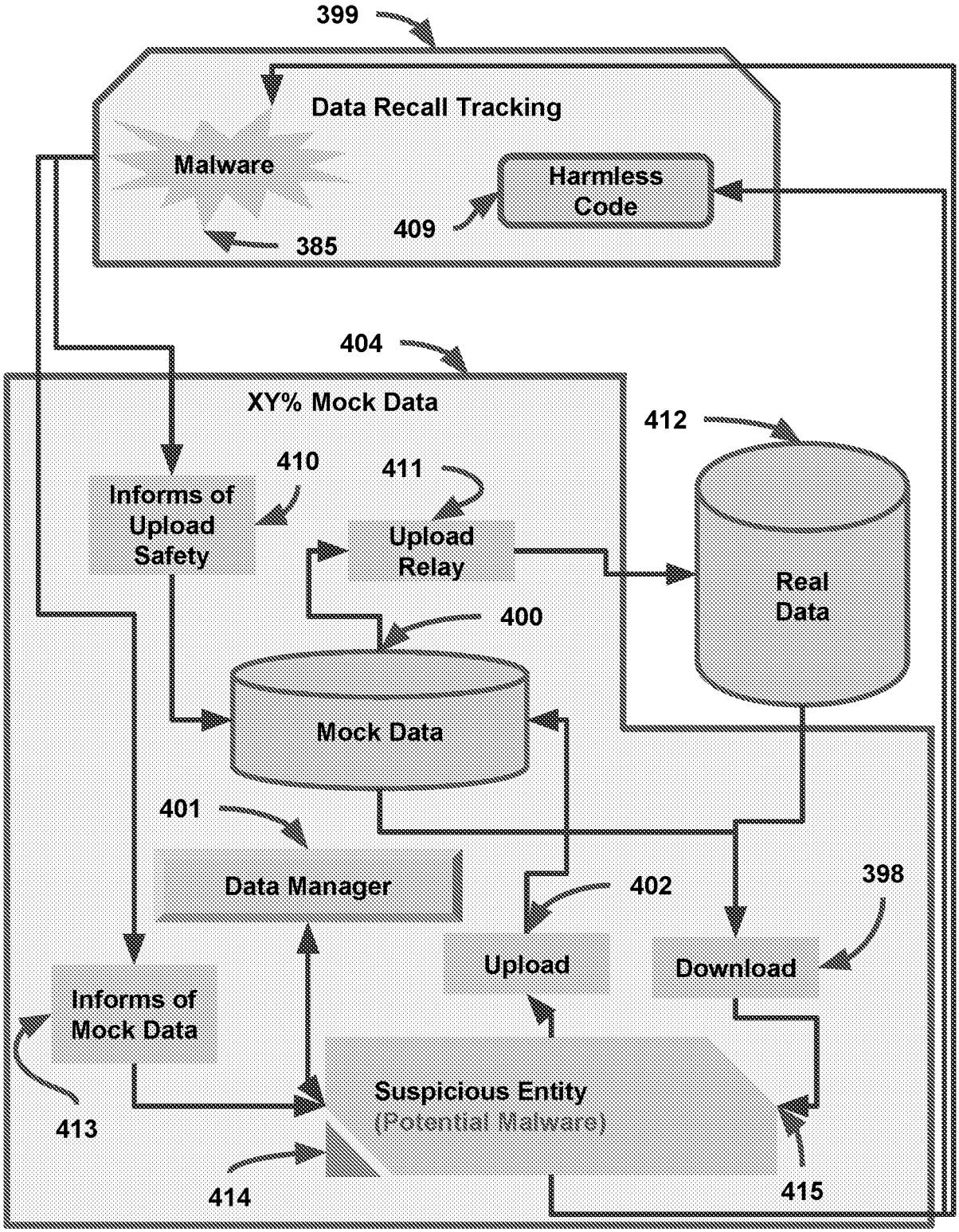

399
Data Recall Tracking
Malware
Harmless Code
409
385
404
XY% Mock Data
412
410
411
Informs of Upload Safety
Upload Relay
Real Data
400
Mock Data
401
Data Manager
402
398
Upload
Download
Informs of Mock Data
Suspicious Entity
(Potential Malware)
413
414
415

FIG. 63

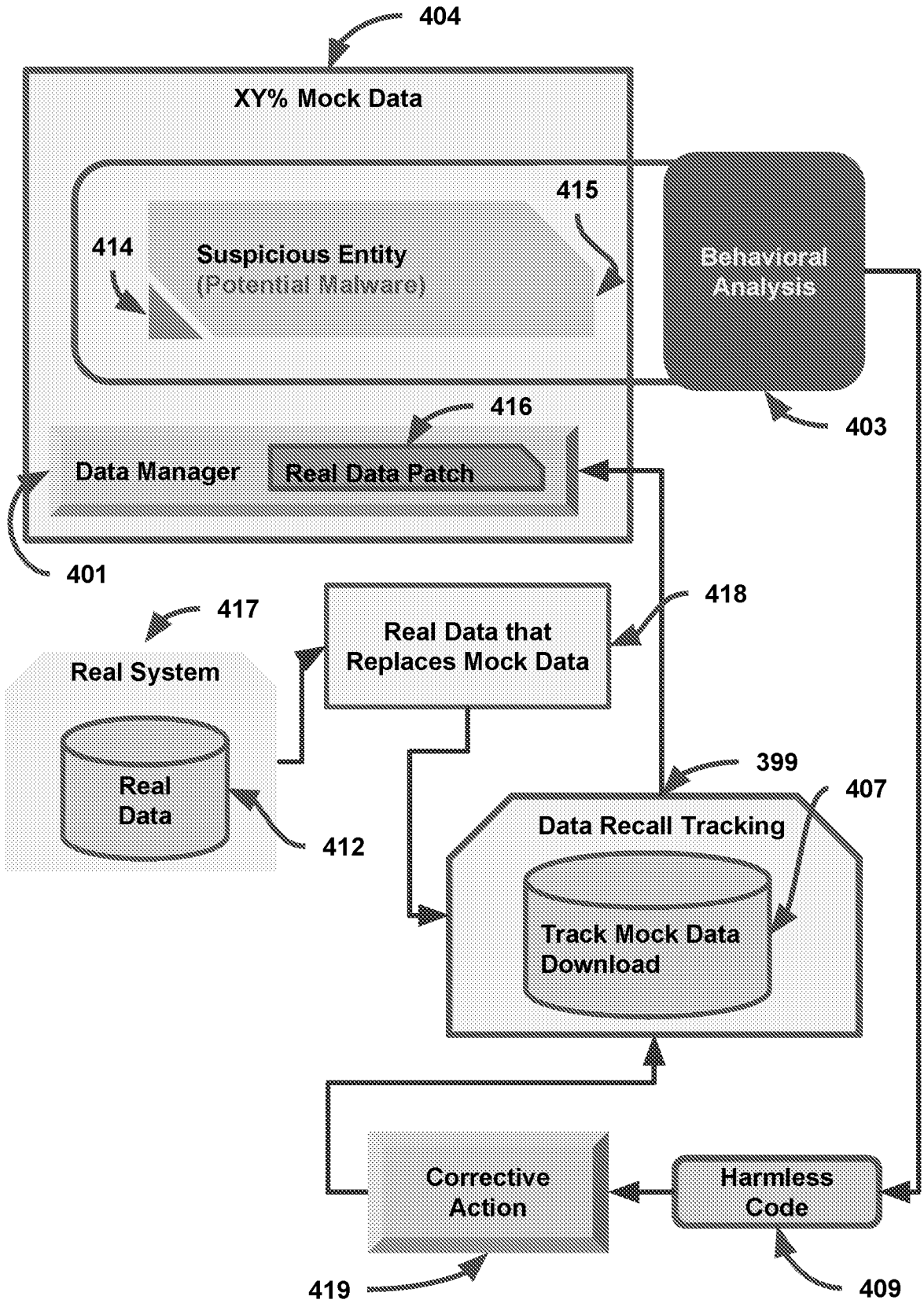

404
XY% Mock Data
415
414
Suspicious Entity
(Potential Malware)
Behavioral Analysis
403
416
Data Manager
Real Data Patch
401
417
418
Real Data that Replaces Mock Data
Real System
Real Data
412
399
407
Data Recall Tracking
Track Mock Data Download
Corrective Action
Harmless Code
419
409

FIG. 64

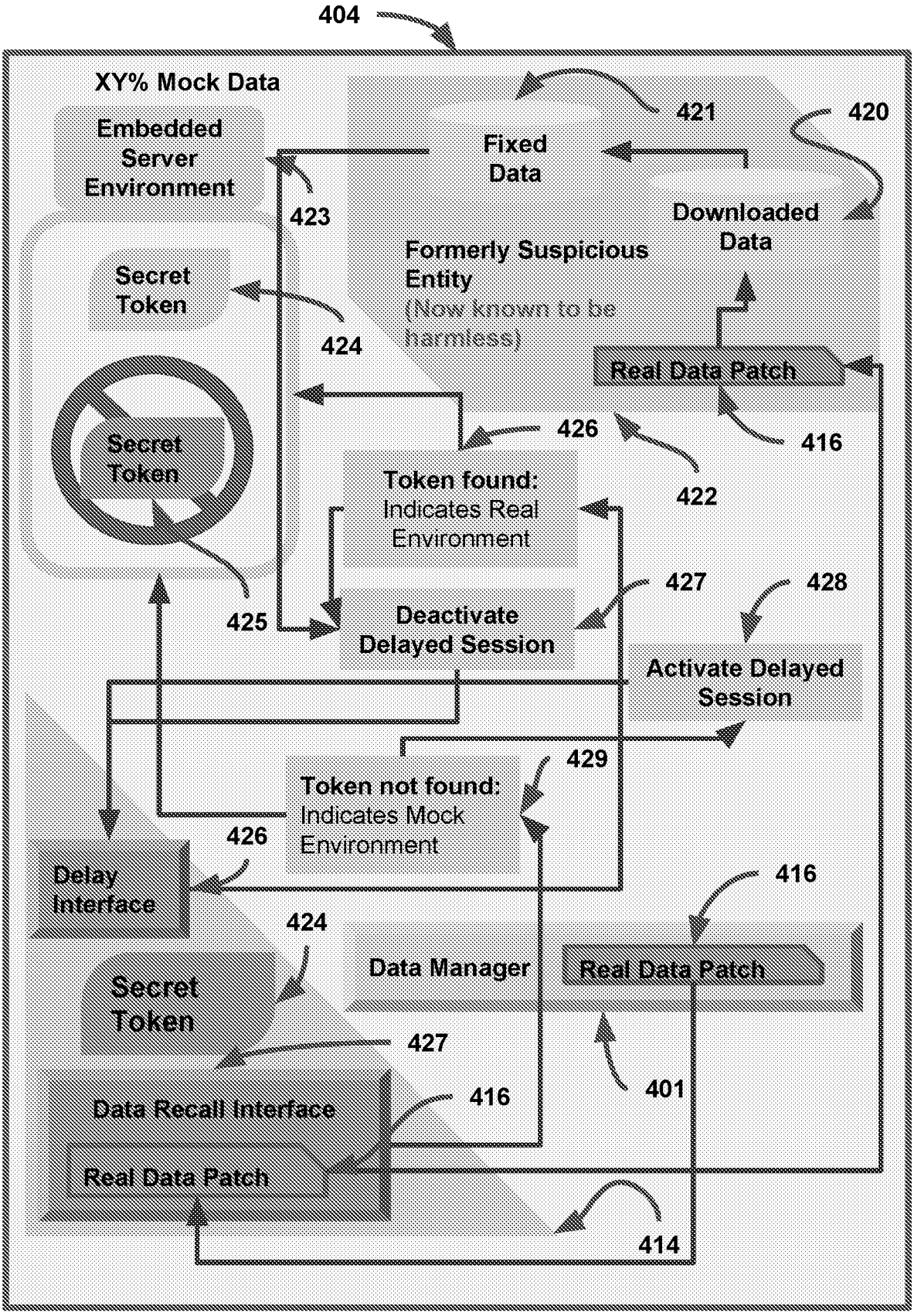

404
XY% Mock Data
Embedded Server Environment
421
420
Fixed Data
423
Downloaded Data
Formerly Suspicious Entity
(Now known to be harmless)
Secret Token
424
Real Data Patch
426
416
Secret Token
Token found:
Indicates Real Environment
422
427
428
425
Deactivate Delayed Session
Activate Delayed Session
429
Token not found:
Indicates Mock Environment
426
Delay Interface
416
424
Data Manager
Real Data Patch
Secret Token
427
401
Data Recall Interface
416
Real Data Patch
414

FIG. 65

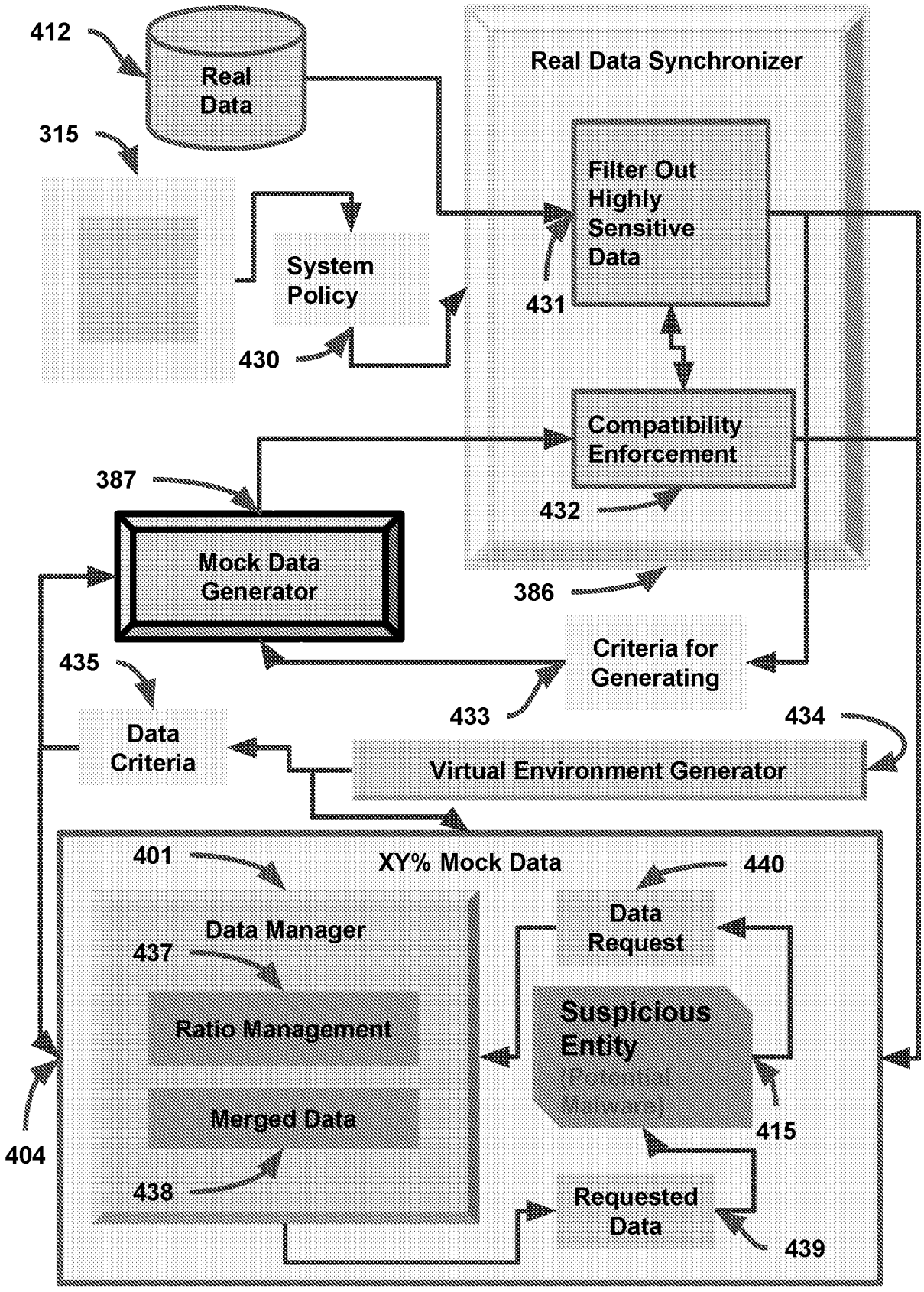

412
Real Data
315
System Policy
430
Real Data Synchronizer
Filter Out Highly Sensitive Data
431
Compatibility Enforcement
432
387
Mock Data Generator
386
435
Criteria for Generating
433
434
Data Criteria
Virtual Environment Generator
401
XY% Mock Data
440
Data Manager
437
Data Request
Ratio Management
Suspicious Entity
Merged Data
415
404
438
Requested Data
439

FIG. 66

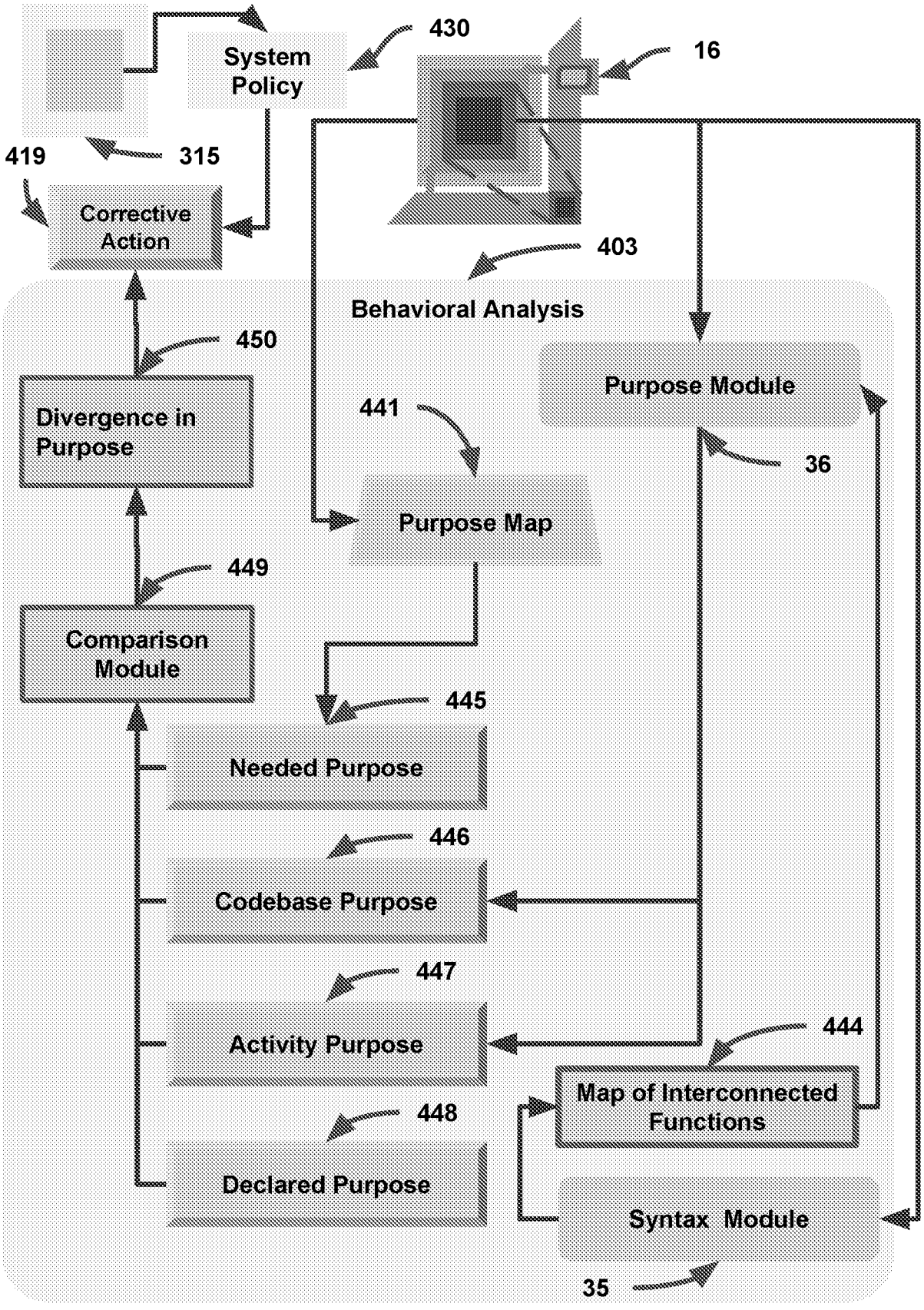

430
System Policy
16
419
315
Corrective Action
403
Behavioral Analysis
450
Divergence in Purpose
Purpose Module
441
36
Purpose Map
449
Comparison Module
445
Needed Purpose
446
Codebase Purpose
447
Activity Purpose
444
Map of Interconnected Functions
448
Declared Purpose
Syntax Module
35

FIG. 67

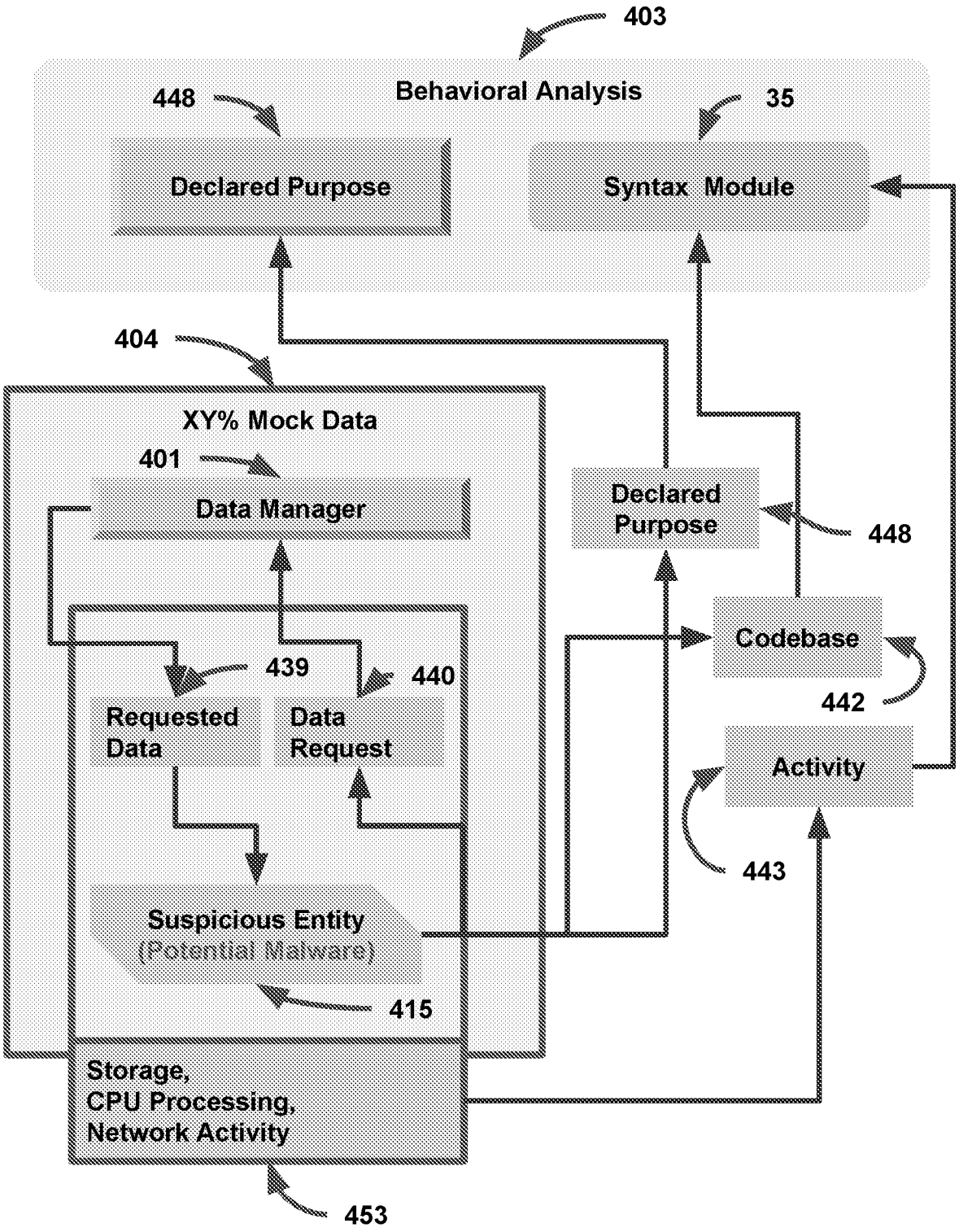

403
Behavioral Analysis
448
Declared Purpose
35
Syntax Module
404
XY% Mock Data
401
Data Manager
439
440
Requested Data
Data Request
Suspicious Entity
(Potential Malware)
415
Storage,
CPU Processing,
Network Activity
453
Declared Purpose
448
Codebase
442
Activity
443

FIG. 68

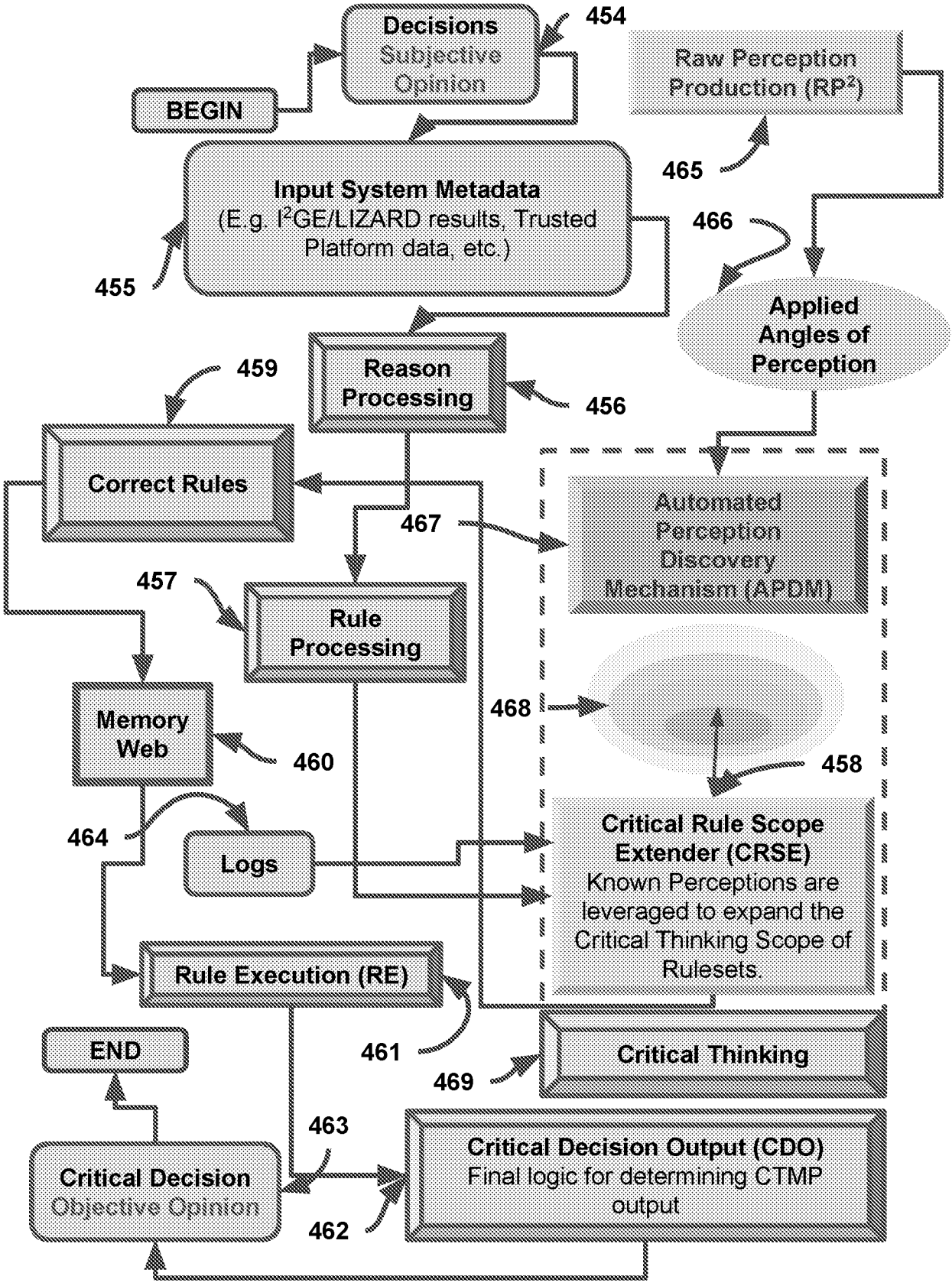

Decisions
Subjective
Opinion
454
BEGIN
Raw Perception
Production (RP²)
465
Input System Metadata
(E.g. I²GE/LIZARD results, Trusted
Platform data, etc.)
455
466
Applied
Angles of
Perception
459
Reason
Processing
456
Correct Rules
467
Automated
Perception
Discovery
Mechanism (APDM)
457
Rule
Processing
468
Memory
Web
460
458
464
Logs
Critical Rule Scope
Extender (CRSE)
Known Perceptions are
leveraged to expand the
Critical Thinking Scope of
Rulesets.
Rule Execution (RE)
END
461
469
Critical Thinking
463
Critical Decision
Objective Opinion
462
Critical Decision Output (CDO)
Final logic for determining CTMP
output

FIG. 69

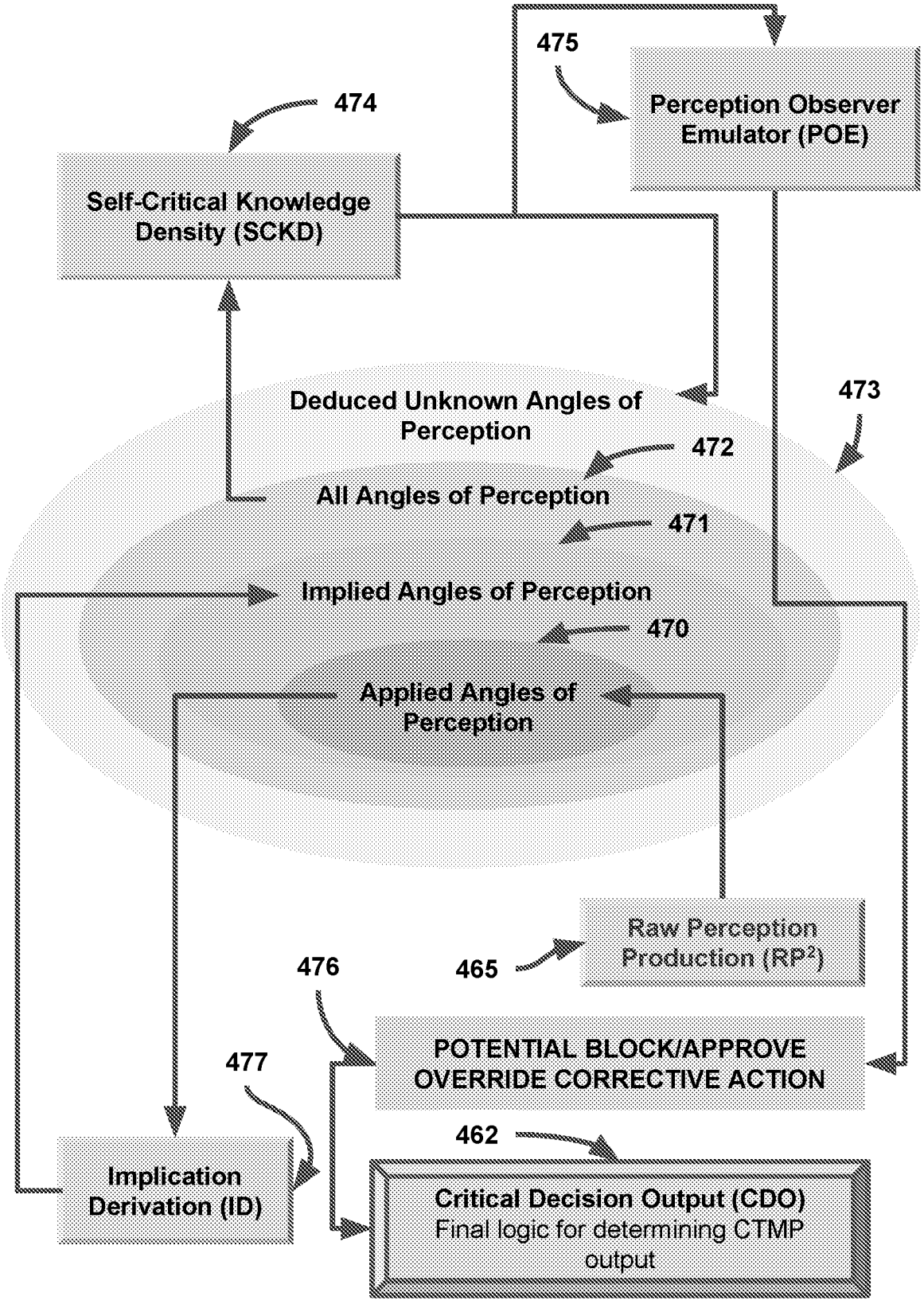

475
Perception Observer Emulator (POE)
474
Self-Critical Knowledge Density (SCKD)
Deduced Unknown Angles of Perception
473
472
All Angles of Perception
471
Implied Angles of Perception
470
Applied Angles of Perception
Raw Perception Production (RP²)
476
465
POTENTIAL BLOCK/APPROVE OVERRIDE CORRECTIVE ACTION
477
462
Implication Derivation (ID)
Critical Decision Output (CDO)
Final logic for determining CTMP output

FIG. 70

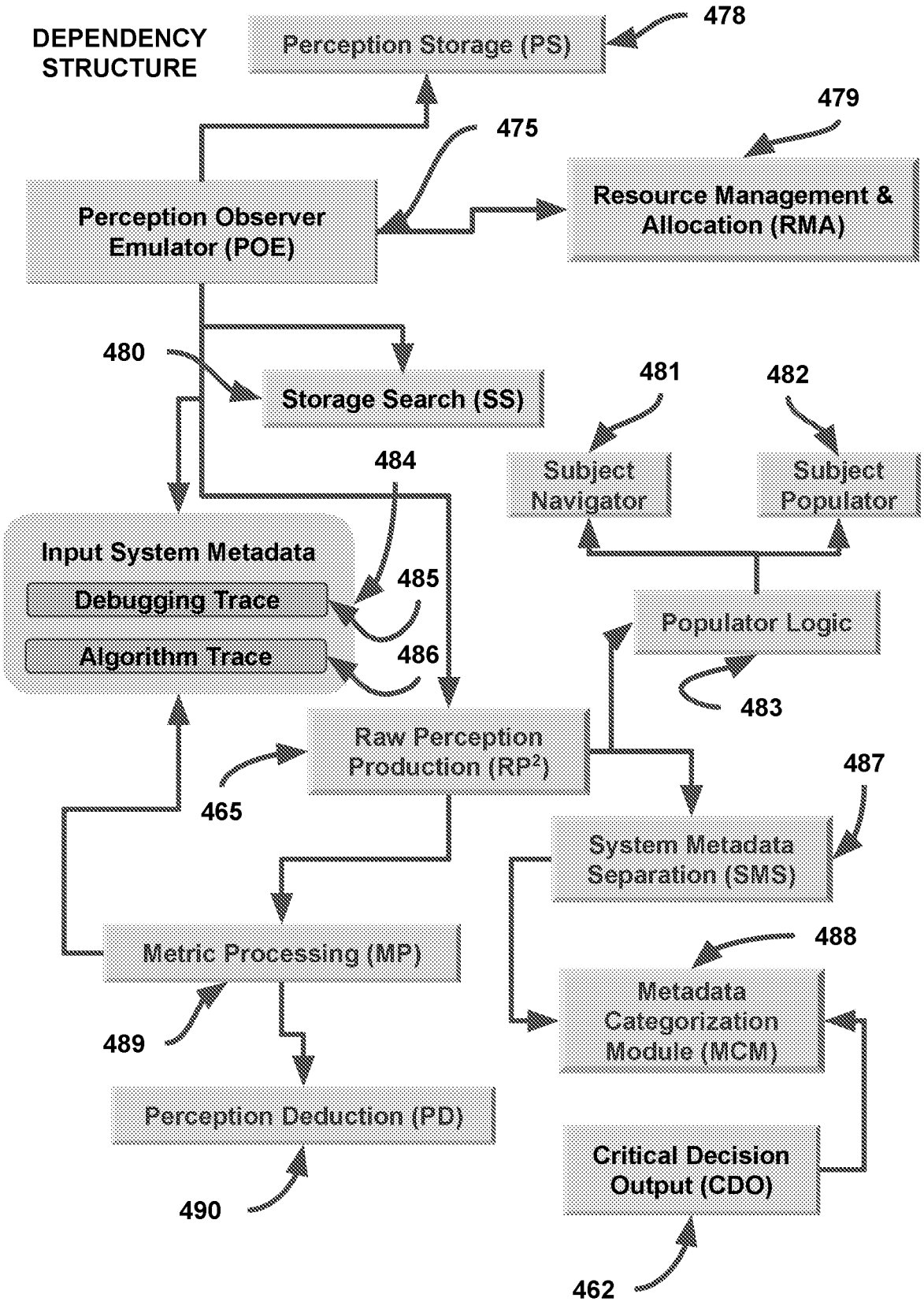

DEPENDENCY STRUCTURE
Perception Storage (PS)
478
479
475
Perception Observer Emulator (POE)
Resource Management & Allocation (RMA)
480
Storage Search (SS)
481
482
Subject Navigator
Subject Populator
484
Input System Metadata
Debugging Trace
Algorithm Trace
485
486
Populator Logic
483
Raw Perception Production (RP²)
465
487
System Metadata Separation (SMS)
Metric Processing (MP)
488
Metadata Categorization Module (MCM)
489
Perception Deduction (PD)
Critical Decision Output (CDO)
490
462

FIG. 71

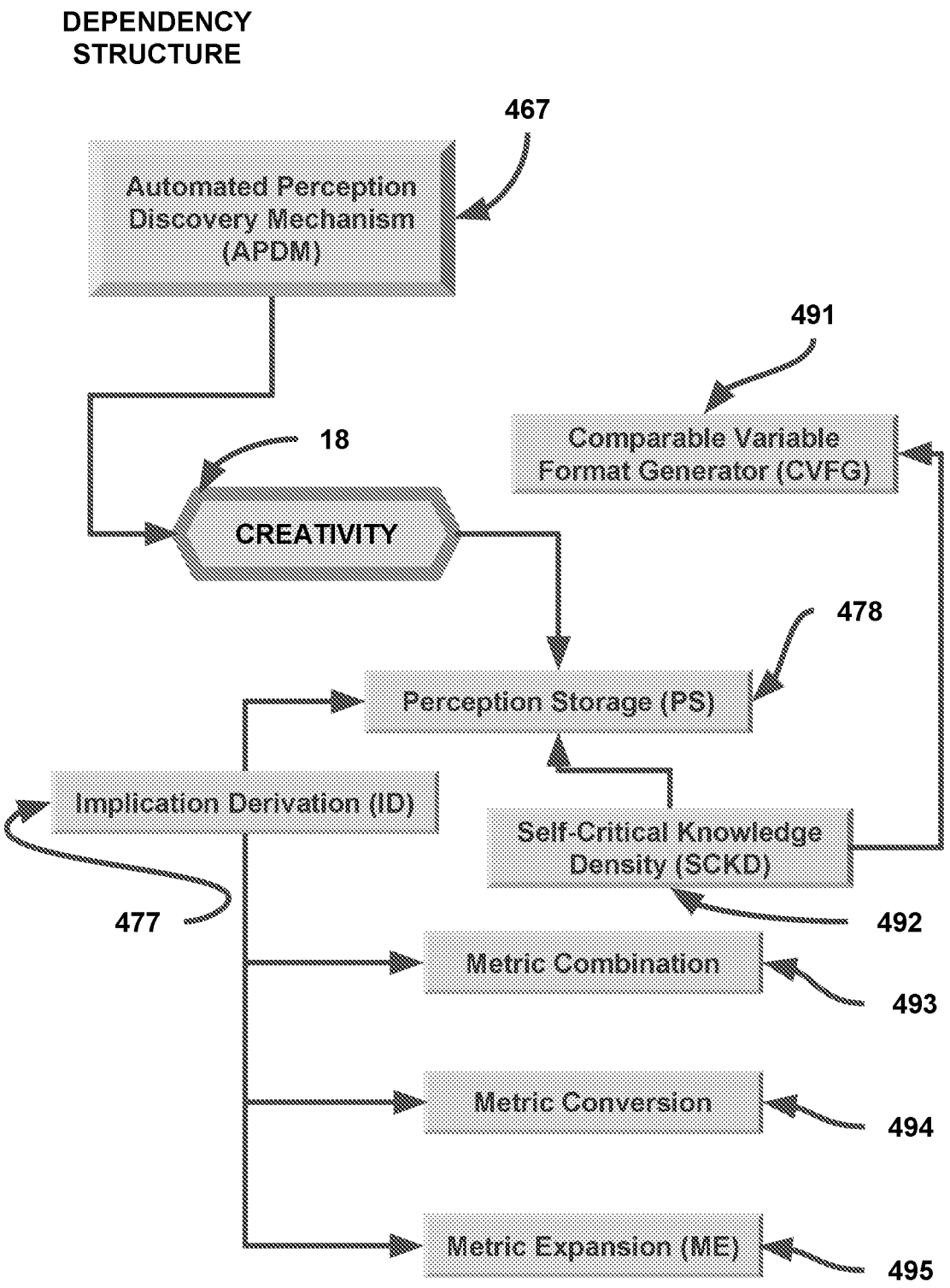

DEPENDENCY STRUCTURE
467
Automated Perception Discovery Mechanism (APDM)
491
Comparable Variable Format Generator (CVFG)
18
CREATIVITY
478
Perception Storage (PS)
Implication Derivation (ID)
Self-Critical Knowledge Density (SCKD)
477
492
Metric Combination
493
Metric Conversion
494
Metric Expansion (ME)
495

FIG. 72

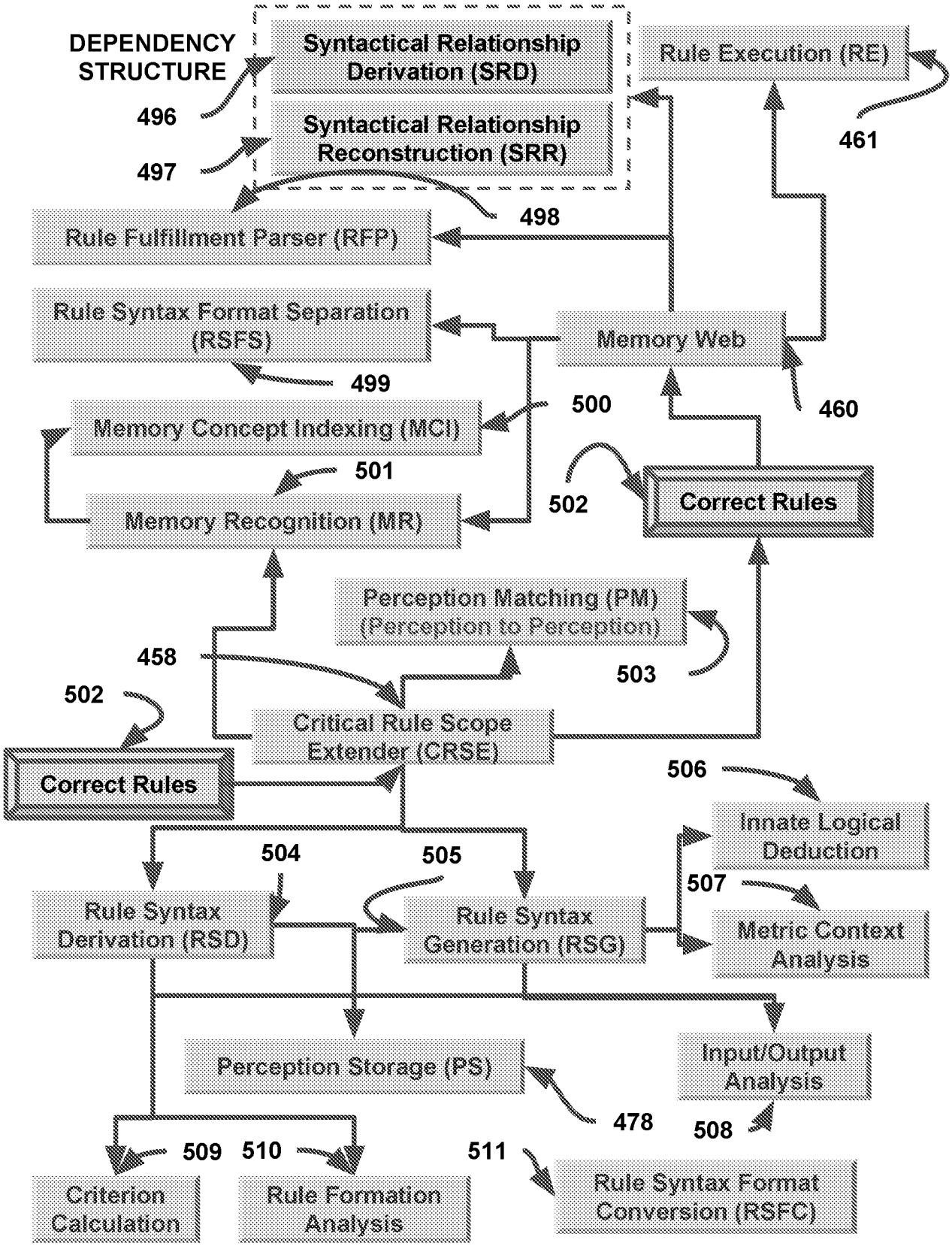

DEPENDENCY STRUCTURE
496
497
Syntactical Relationship Derivation (SRD)
Syntactical Relationship Reconstruction (SRR)
Rule Execution (RE)
461
498
Rule Fulfillment Parser (RFP)
Rule Syntax Format Separation (RSFS)
499
Memory Web
460
500
Memory Concept Indexing (MCI)
501
Memory Recognition (MR)
502
Correct Rules
Perception Matching (PM) (Perception to Perception)
458
503
502
Critical Rule Scope Extender (CRSE)
Correct Rules
506
Innate Logical Deduction
504
505
507
Rule Syntax Derivation (RSD)
Rule Syntax Generation (RSG)
Metric Context Analysis
Perception Storage (PS)
Input/Output Analysis
478
508
509
510
511
Criterion Calculation
Rule Formation Analysis
Rule Syntax Format Conversion (RSFC)

FIG. 73

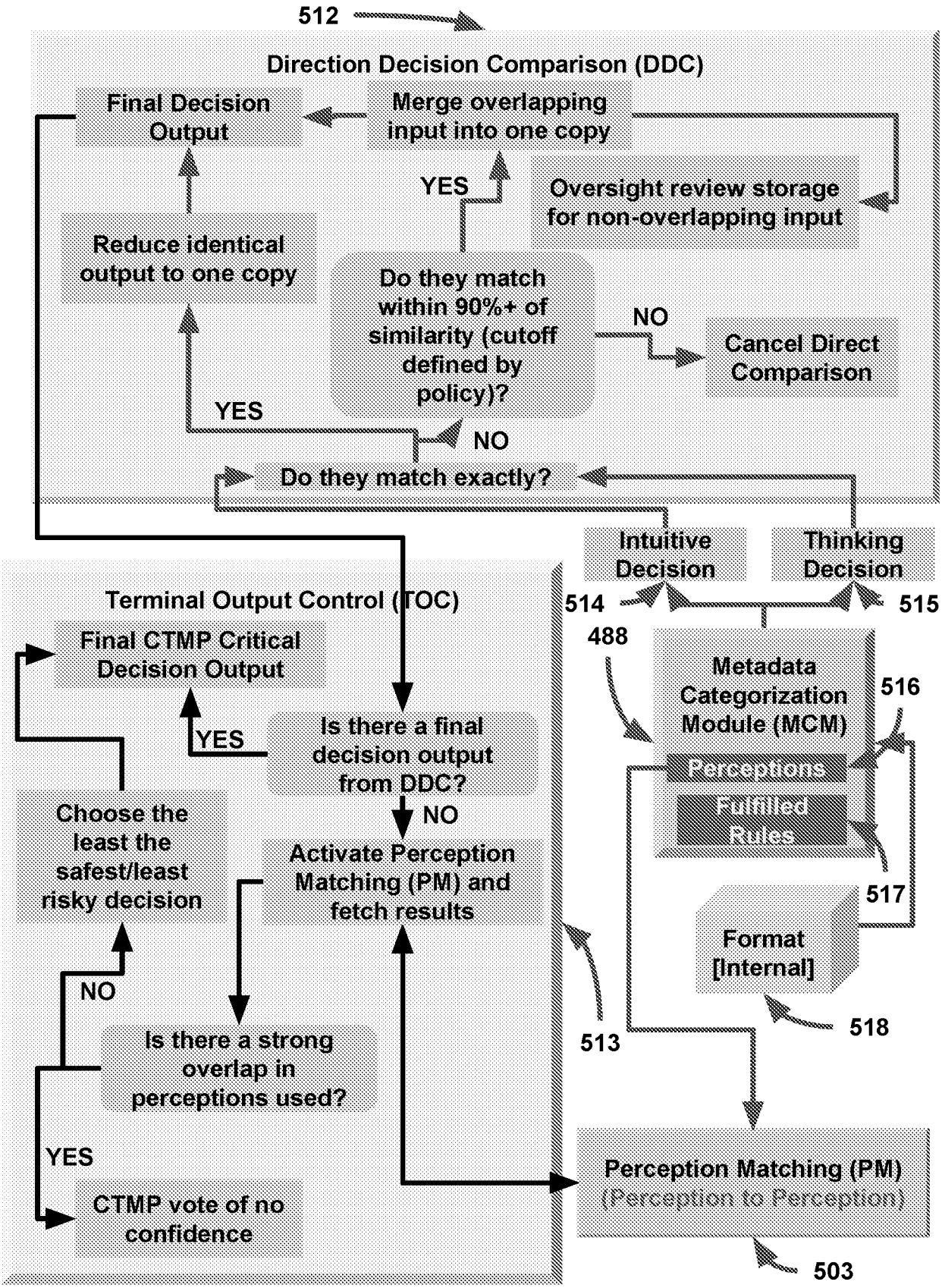

512
Direction Decision Comparison (DDC)
Final Decision Output
Merge overlapping input into one copy
YES
Oversight review storage for non-overlapping input
Reduce identical output to one copy
Do they match within 90%+ of similarity (cutoff defined by policy)?
NO
Cancel Direct Comparison
YES
NO
Do they match exactly?
Intuitive Decision
Thinking Decision
514
515
Terminal Output Control (TOC)
Final CTMP Critical Decision Output
488
Metadata Categorization Module (MCM)
516
Perceptions
Fulfilled Rules
YES
Is there a final decision output from DDC?
NO
Choose the least the safest/least risky decision
Activate Perception Matching (PM) and fetch results
517
Format [Internal]
NO
513
518
Is there a strong overlap in perceptions used?
YES
CTMP vote of no confidence
Perception Matching (PM)
(Perception to Perception)
503

FIG. 74

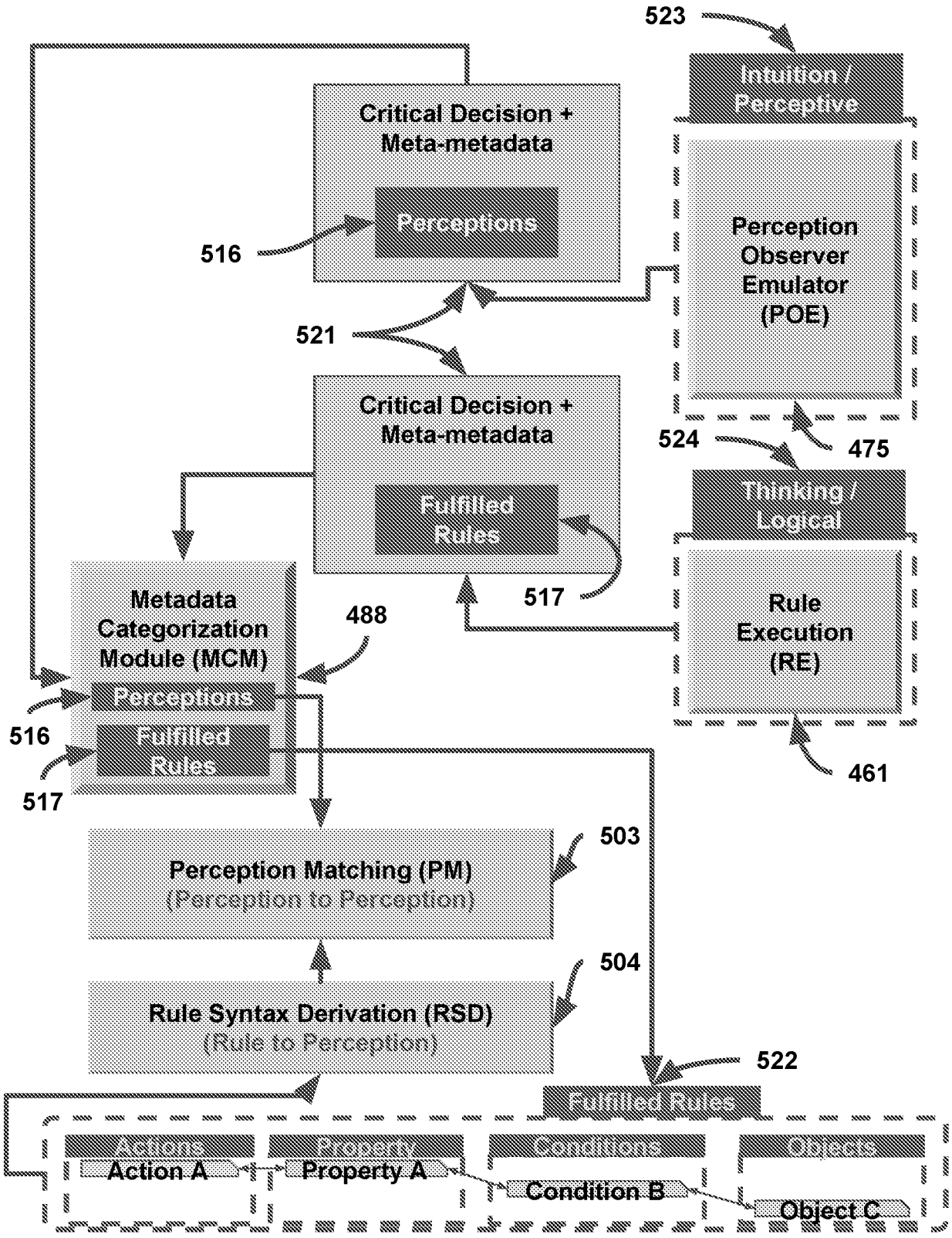

523
Intuition / Perceptive
Critical Decision + Meta-metadata
Perceptions
516
Perception Observer Emulator (POE)
521
Critical Decision + Meta-metadata
Fulfilled Rules
524
475
Thinking / Logical
517
Rule Execution (RE)
488
Metadata Categorization Module (MCM)
Perceptions
516
Fulfilled Rules
517
461
503
Perception Matching (PM)
(Perception to Perception)
504
Rule Syntax Derivation (RSD)
(Rule to Perception)
522
Fulfilled Rules
Actions
Properties
Conditions
Objects
Action A
Property A
Condition B
Object C

FIG. 75

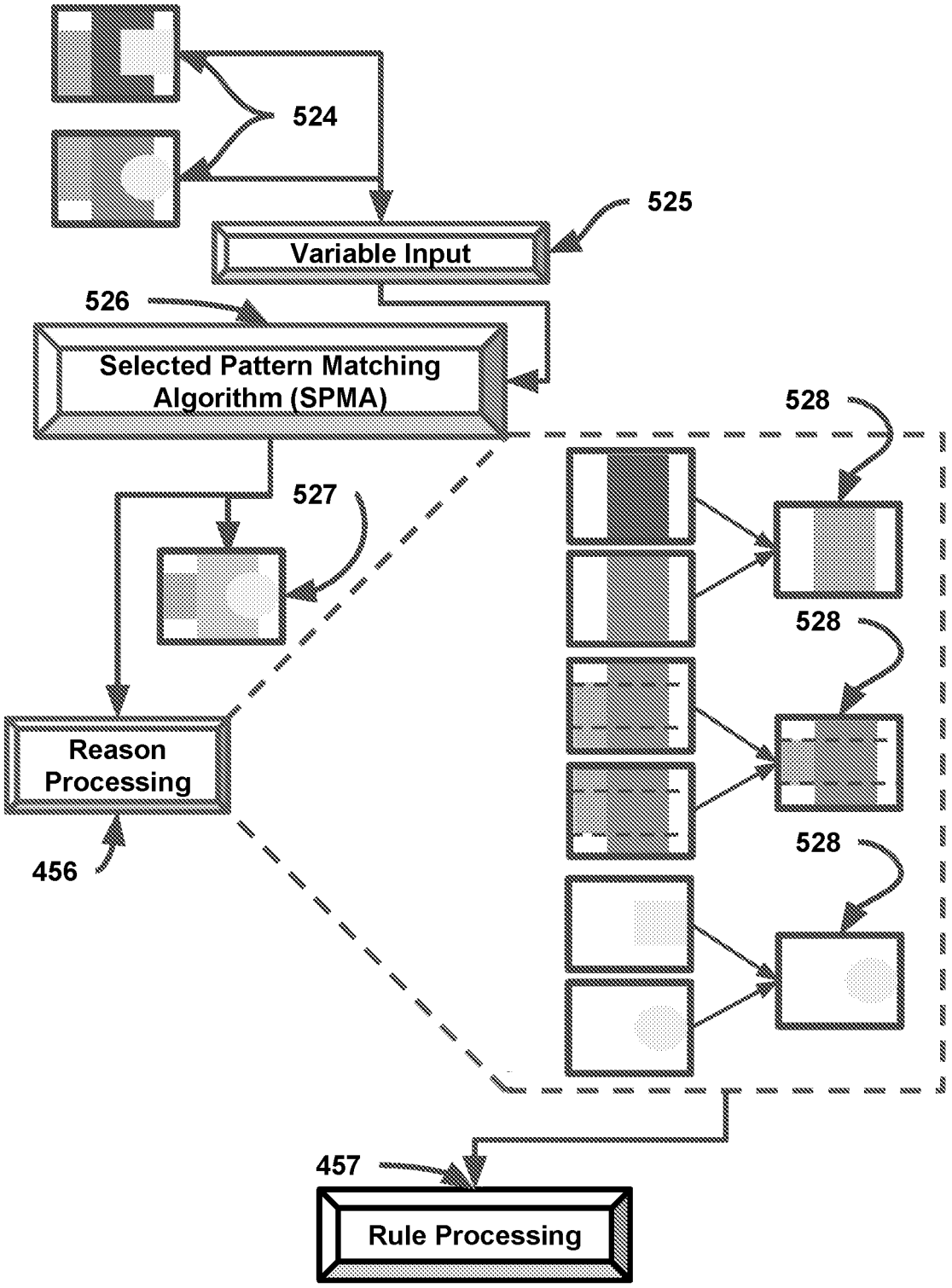

524
525
Variable Input
526
Selected Pattern Matching Algorithm (SPMA)
528
527
528
528
Reason Processing
456
457
Rule Processing

FIG. 76

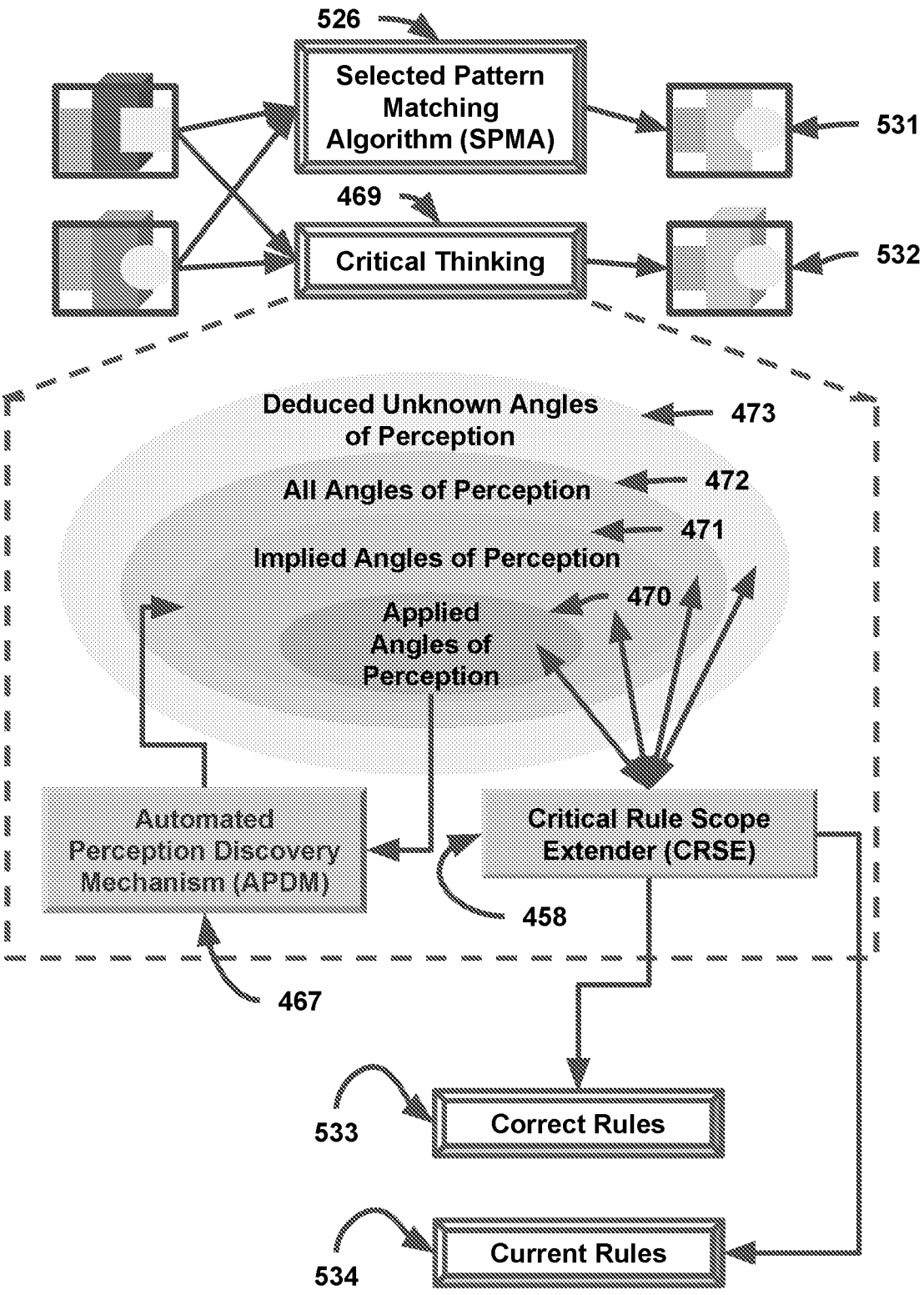

526
Selected Pattern Matching Algorithm (SPMA)
531
469
Critical Thinking
532
Deduced Unknown Angles of Perception
473
All Angles of Perception
472
Implied Angles of Perception
471
Applied Angles of Perception
470
Automated Perception Discovery Mechanism (APDM)
Critical Rule Scope Extender (CRSE)
458
467
533
Correct Rules
534
Current Rules

FIG. 77

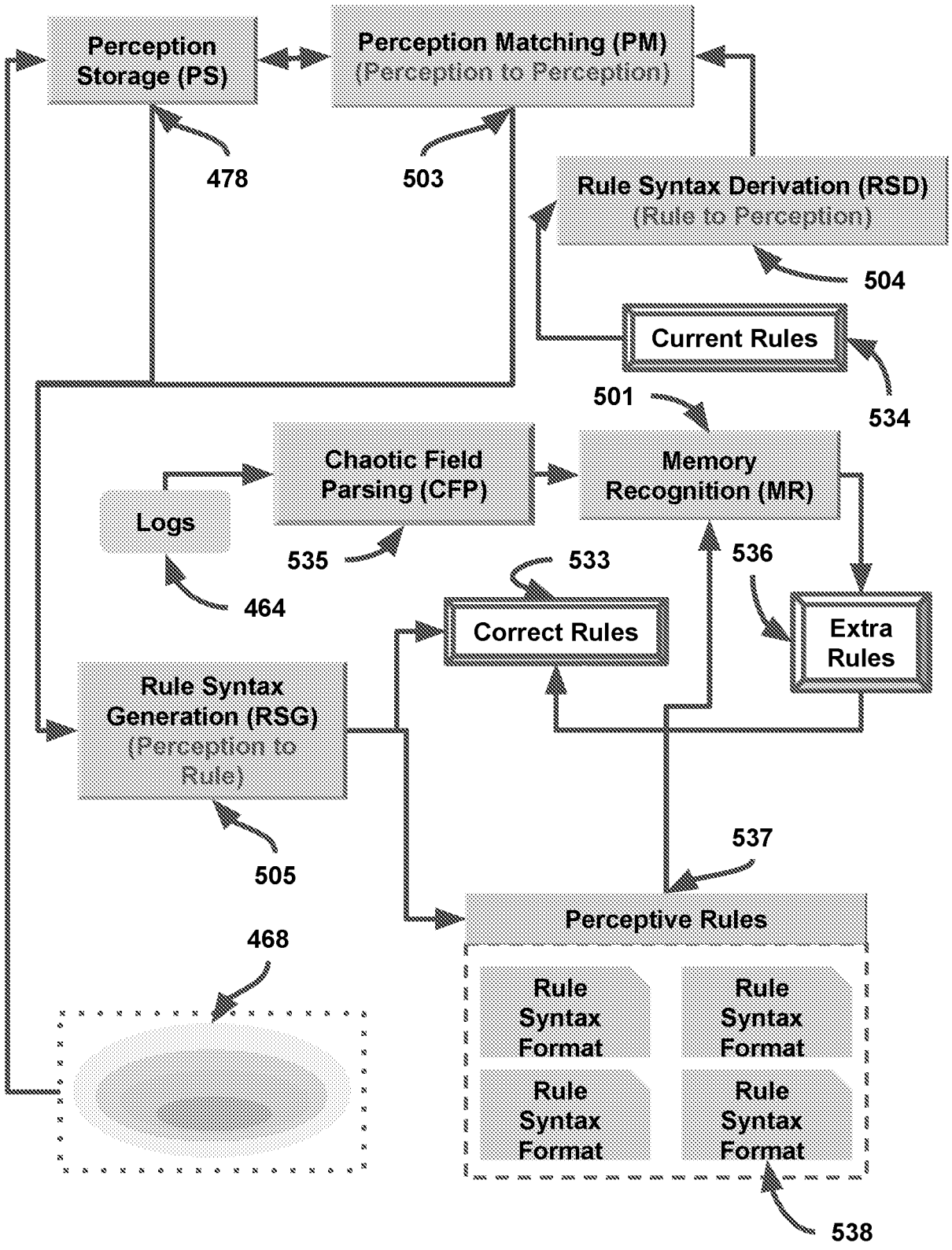

Perception Storage (PS)
Perception Matching (PM) (Perception to Perception)
478
503
Rule Syntax Derivation (RSD) (Rule to Perception)
504
Current Rules
534
501
Chaotic Field Parsing (CFP)
Memory Recognition (MR)
Logs
535
533
536
464
Correct Rules
Extra Rules
Rule Syntax Generation (RSG) (Perception to Rule)
505
537
Perceptive Rules
468
Rule Syntax Format
Rule Syntax Format
Rule Syntax Format
Rule Syntax Format
538

FIG. 78

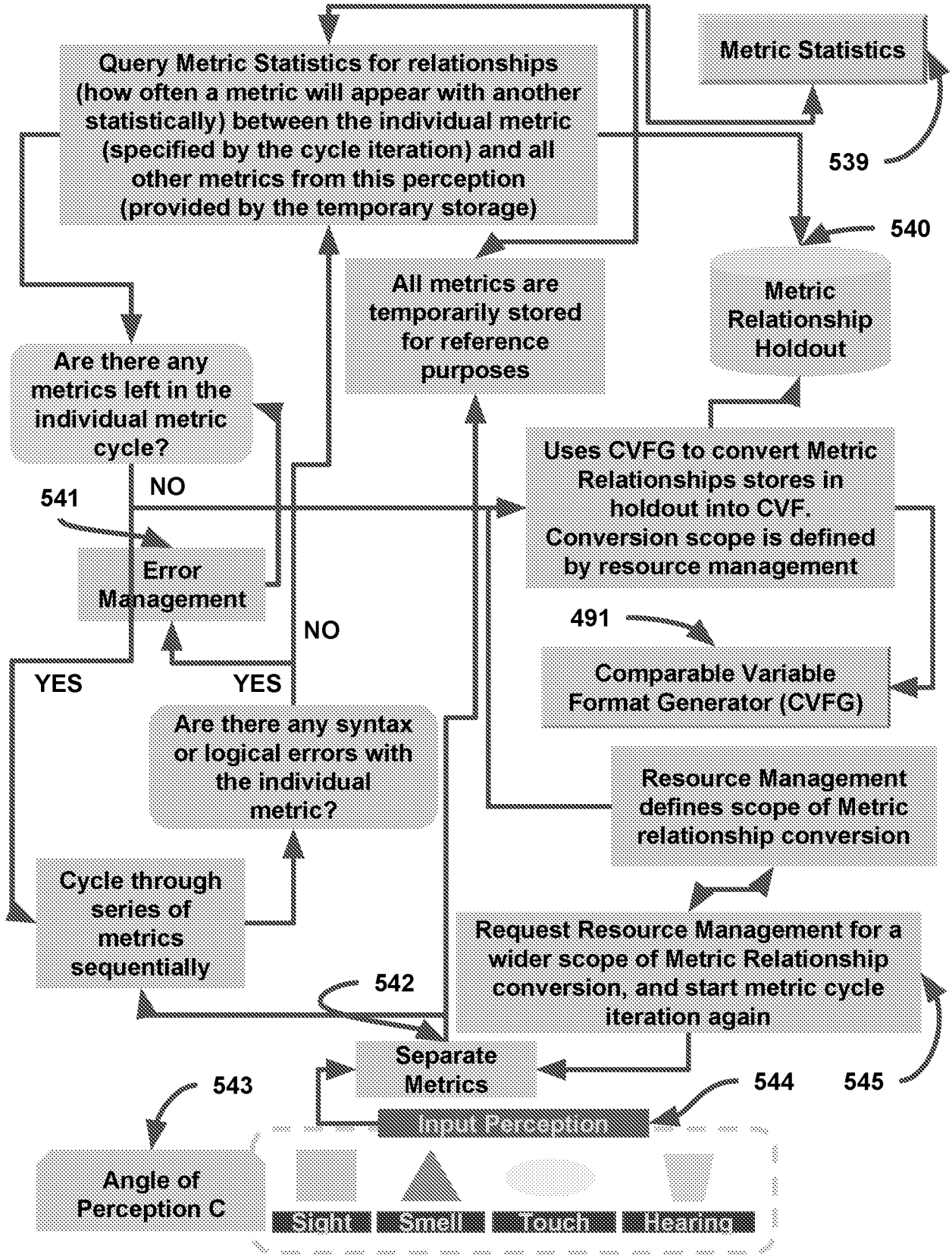

Query Metric Statistics for relationships (how often a metric will appear with another statistically) between the individual metric (specified by the cycle iteration) and all other metrics from this perception (provided by the temporary storage)
Metric Statistics
539
540
All metrics are temporarily stored for reference purposes
Metric Relationship Holdout
Are there any metrics left in the individual metric cycle?
NO
541
Uses CVFG to convert Metric Relationships stores in holdout into CVF. Conversion scope is defined by resource management
Error Management
NO
491
YES
YES
Comparable Variable Format Generator (CVFG)
Are there any syntax or logical errors with the individual metric?
Resource Management defines scope of Metric relationship conversion
Cycle through series of metrics sequentially
Request Resource Management for a wider scope of Metric Relationship conversion, and start metric cycle iteration again
542
Separate Metrics
543
544
545
Input Perception
Angle of Perception C
Sight
Smell
Touch
Hearing

FIG. 79

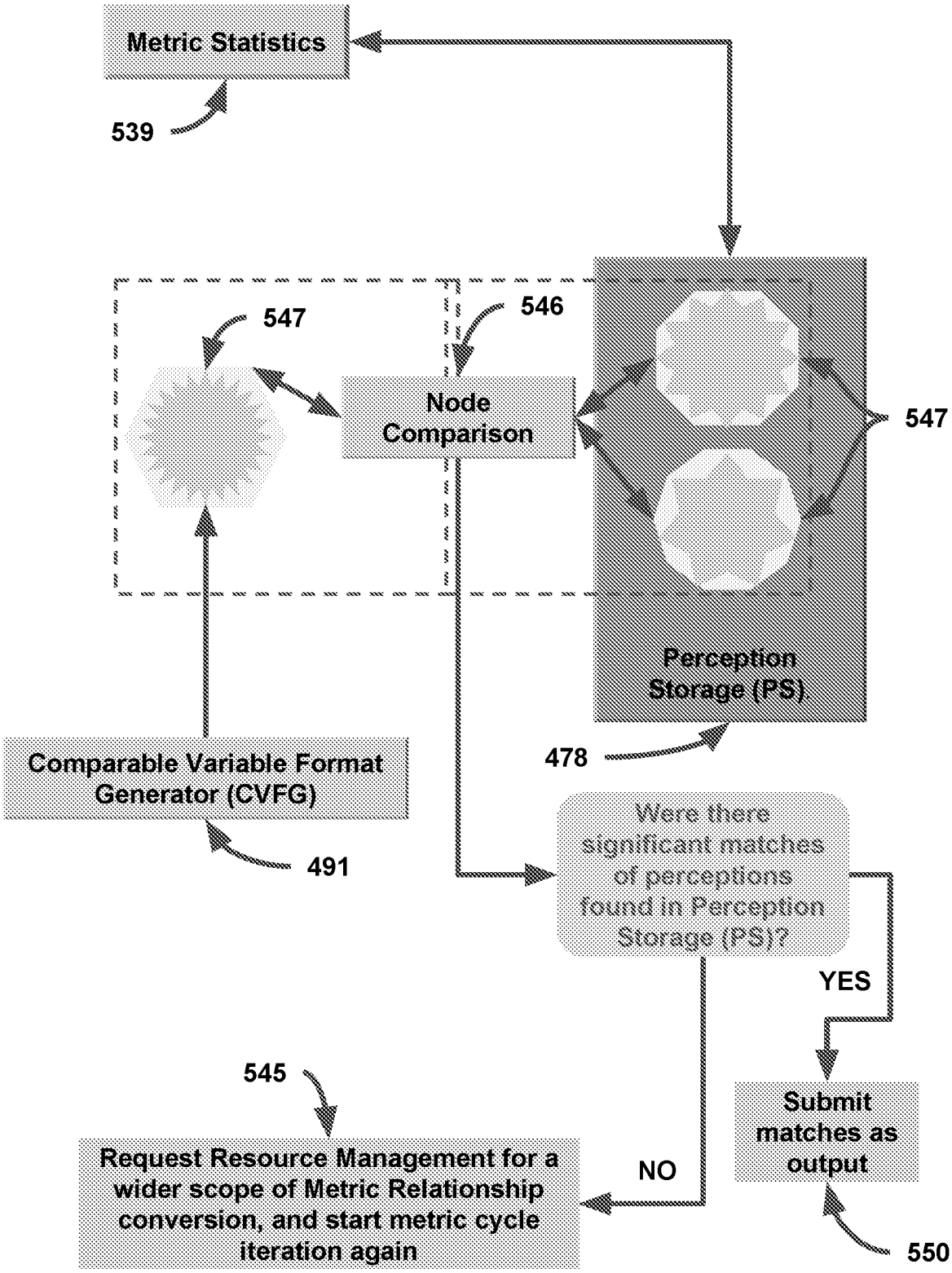

Metric Statistics
539
547
546
Node Comparison
547
Perception Storage (PS)
478
Comparable Variable Format Generator (CVFG)
491
Were there significant matches of perceptions found in Perception Storage (PS)?
YES
NO
545
Request Resource Management for a wider scope of Metric Relationship conversion, and start metric cycle iteration again
Submit matches as output
550

FIG. 80

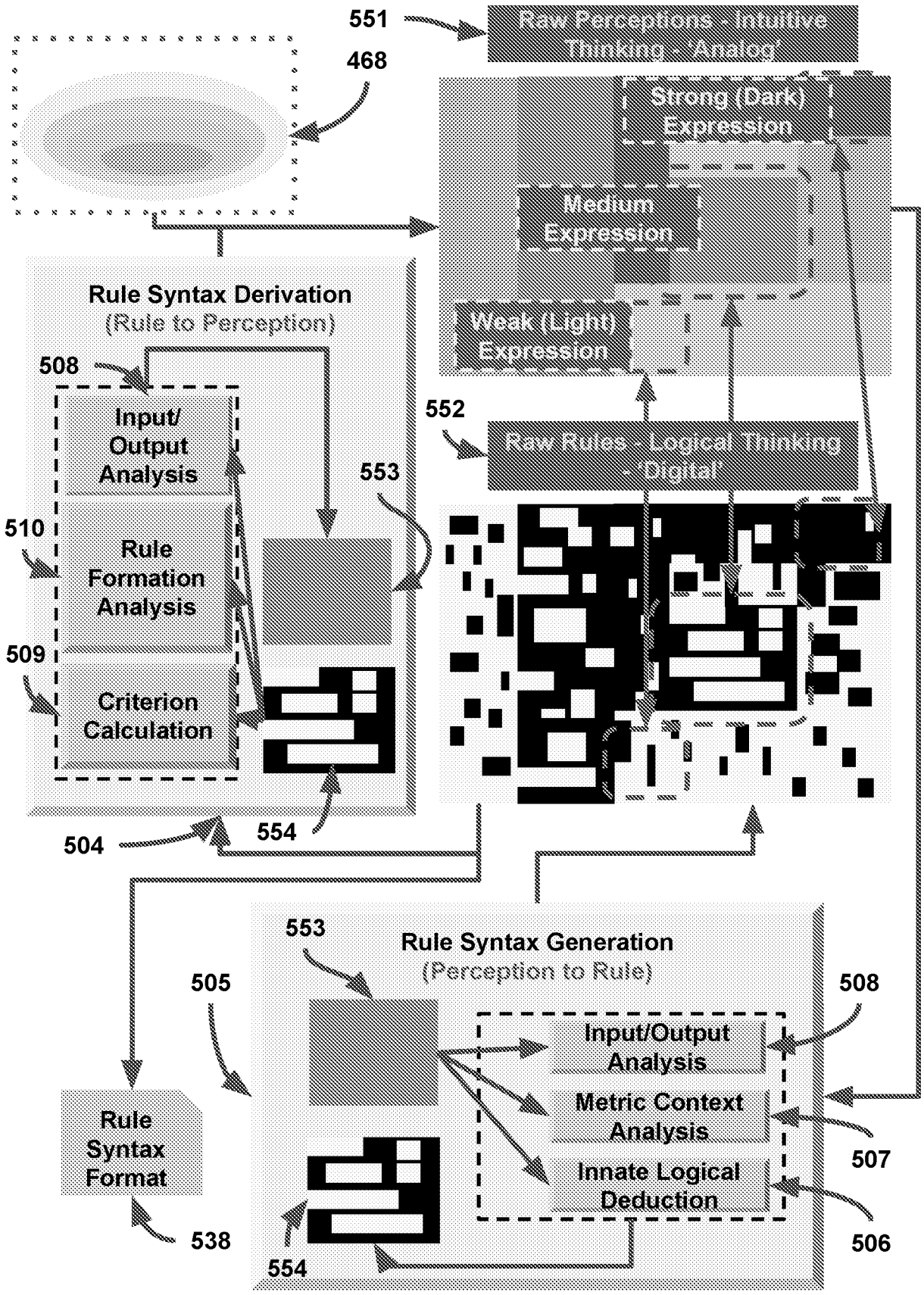

551
Raw Perceptions - Intuitive Thinking - 'Analog'
468
Strong (Dark) Expression
Medium Expression
Weak (Light) Expression
Rule Syntax Derivation
(Rule to Perception)
508
Input/ Output Analysis
510
Rule Formation Analysis
509
Criterion Calculation
552
Raw Rules - Logical Thinking - 'Digital'
553
554
504
553
Rule Syntax Generation
(Perception to Rule)
505
508
Input/Output Analysis
Metric Context Analysis
Innate Logical Deduction
507
506
Rule Syntax Format
538
554

FIG. 81

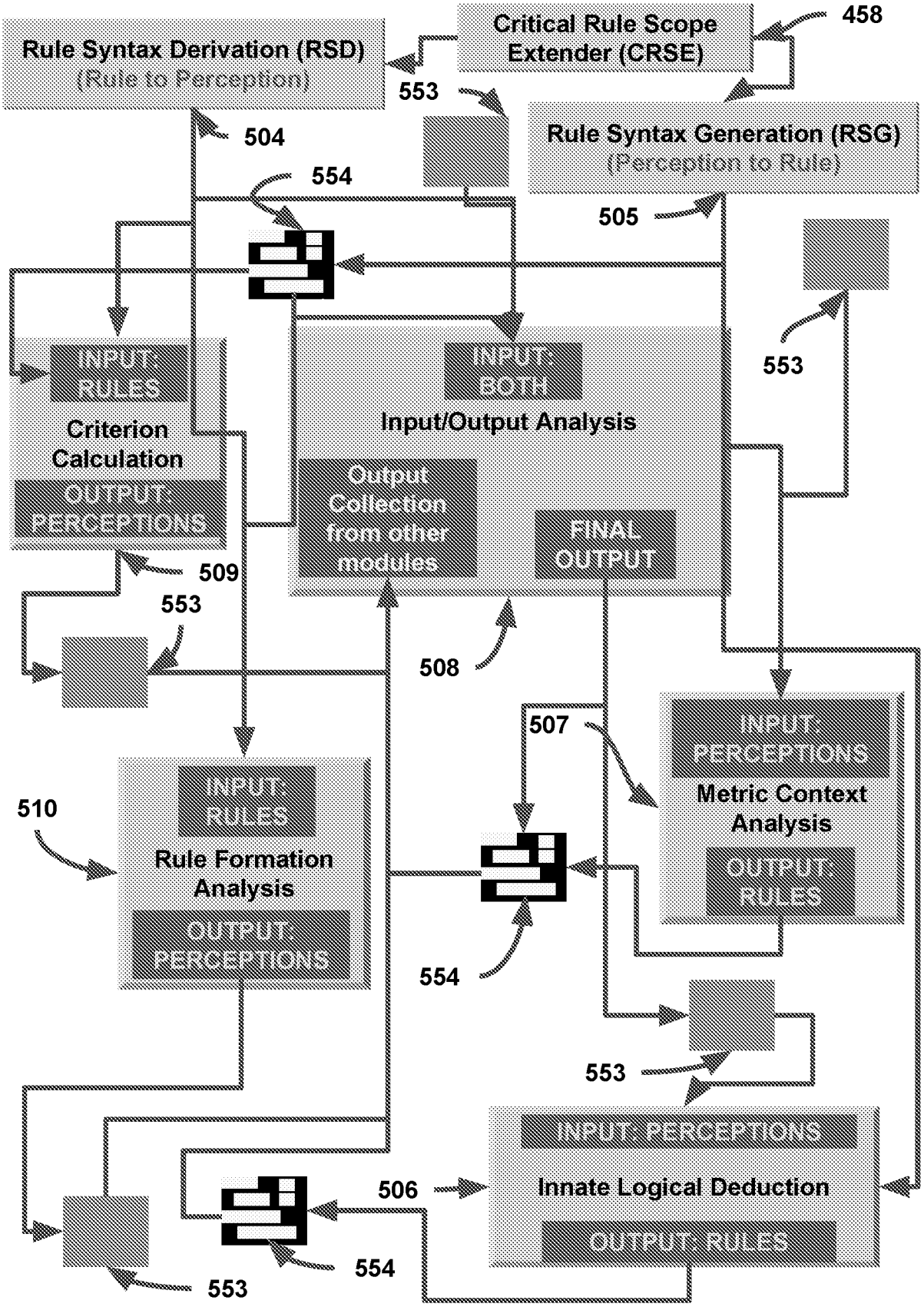

Rule Syntax Derivation (RSD)
(Rule to Perception)
Critical Rule Scope Extender (CRSE)
458
553
504
Rule Syntax Generation (RSG)
(Perception to Rule)
554
505
553
INPUT: RULES
Criterion Calculation
OUTPUT: PERCEPTIONS
INPUT: BOTH
Input/Output Analysis
Output Collection from other modules
FINAL OUTPUT
509
553
508
507
INPUT: PERCEPTIONS
Metric Context Analysis
OUTPUT: RULES
510
INPUT: RULES
Rule Formation Analysis
OUTPUT: PERCEPTIONS
554
553
INPUT: PERCEPTIONS
506
Innate Logical Deduction
OUTPUT: RULES
554
553

FIG. 82

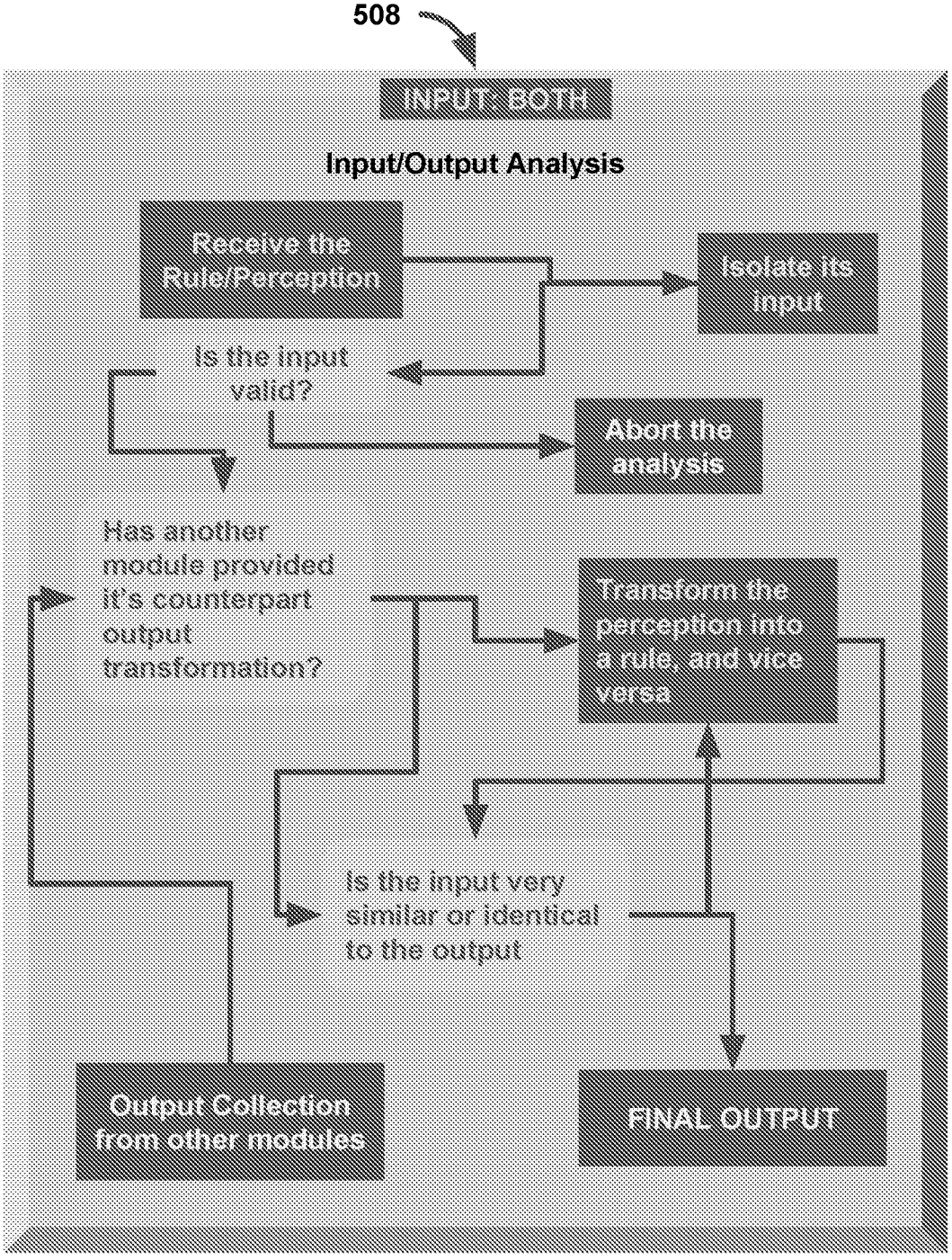

508
INPUT & BOT?
Input/Output Analysis
Receive the Rule/Perception
Isolate its input
Is the input valid?
Abort the analysis
Has another module provided it's counterpart output transformation?
Transform the perception into a rule, and vice versa
Is the input very similar or identical to the output
Output Collection from other modules
FINAL OUTPUT

FIG. 83

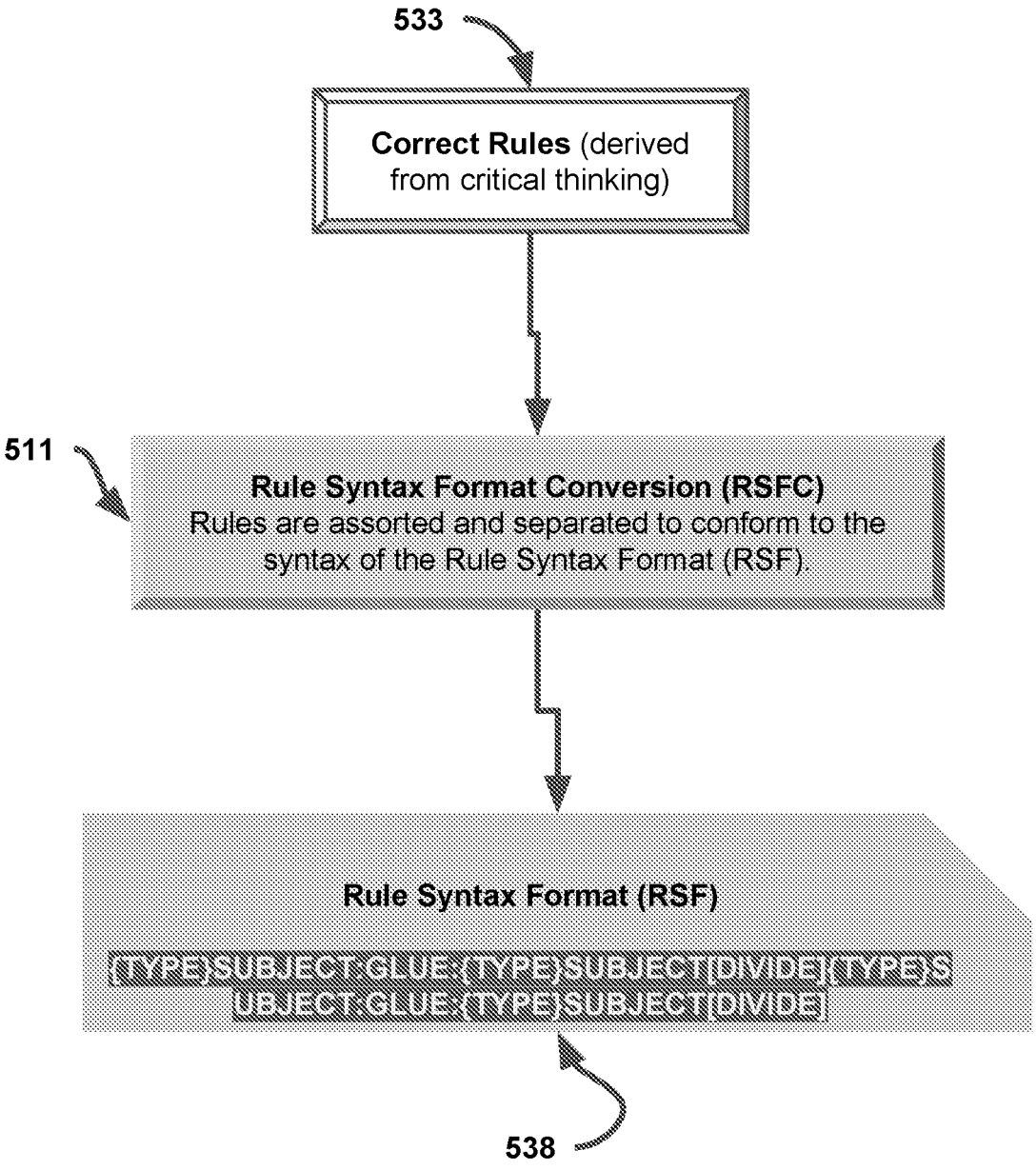

533
Correct Rules (derived from critical thinking)
511
Rule Syntax Format Conversion (RSFC)
Rules are assorted and separated to conform to the syntax of the Rule Syntax Format (RSF).
Rule Syntax Format (RSF)
[TYPE][SUBJECT][GLUE][TYPE][SUBJECT][DIVIDE][TYPE][SUBJECT][GLUE][TYPE][SUBJECT][DIVIDE]
538

FIG. 84

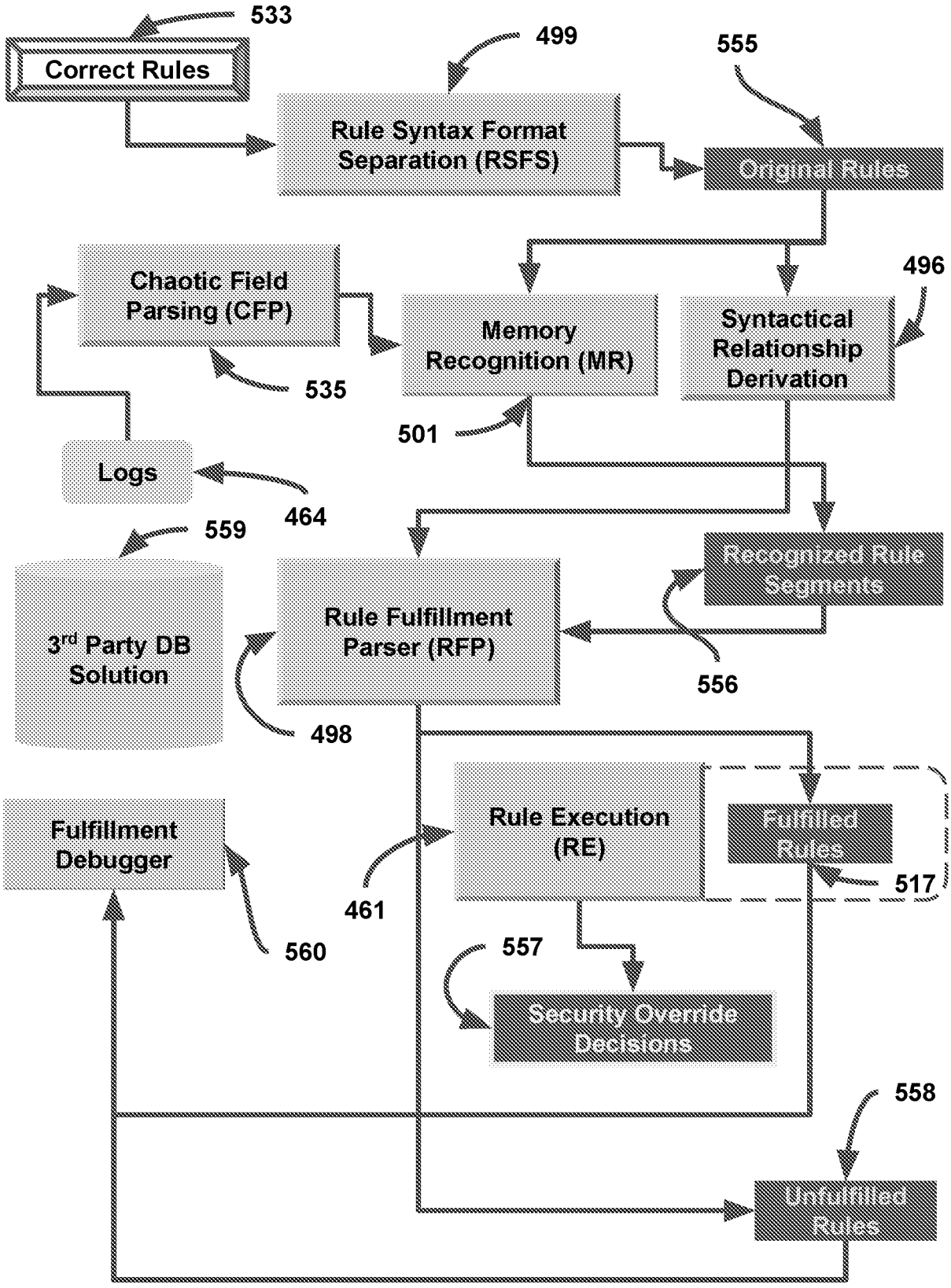

533
Correct Rules
499
Rule Syntax Format Separation (RSFS)
555
Original Rules
Chaotic Field Parsing (CFP)
535
Memory Recognition (MR)
496
Syntactical Relationship Derivation
501
Logs
464
559
3rd Party DB Solution
Rule Fulfillment Parser (RFP)
498
Recognized Rule Segments
556
Fulfillment Debugger
560
Rule Execution (RE)
461
Fulfilled Rules
517
557
Security Override Decisions
558
Unfulfilled Rules

FIG. 85

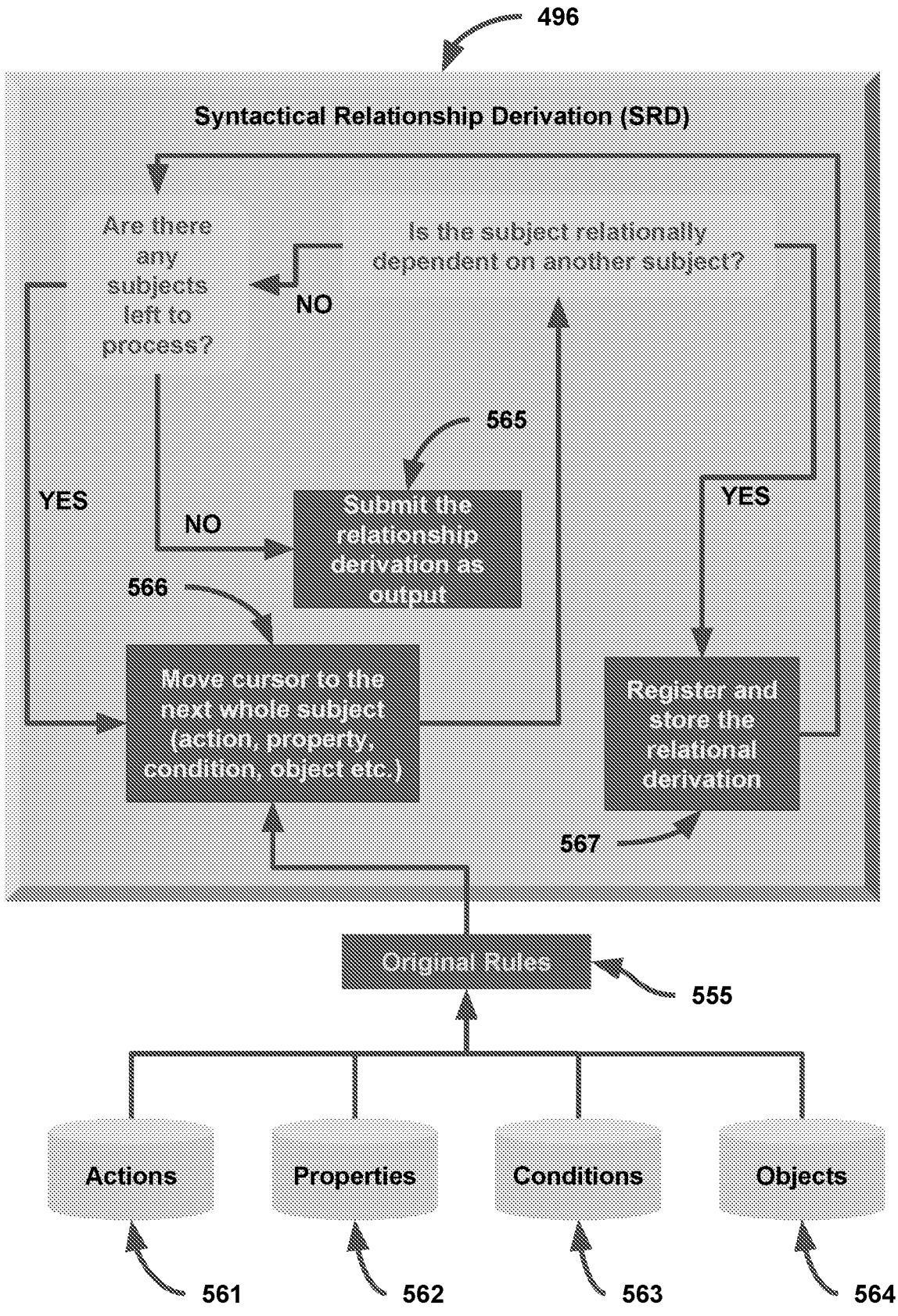

496
Syntactical Relationship Derivation (SRD)
Are there any subjects left to process?
NO
Is the subject relationally dependent on another subject?
565
YES
NO
YES
Submit the relationship derivation as output
566
Move cursor to the next whole subject (action, property, condition, object etc.)
Register and store the relational derivation
567
Original Rules
555
Actions
Properties
Conditions
Objects
561
562
563
564

FIG. 86

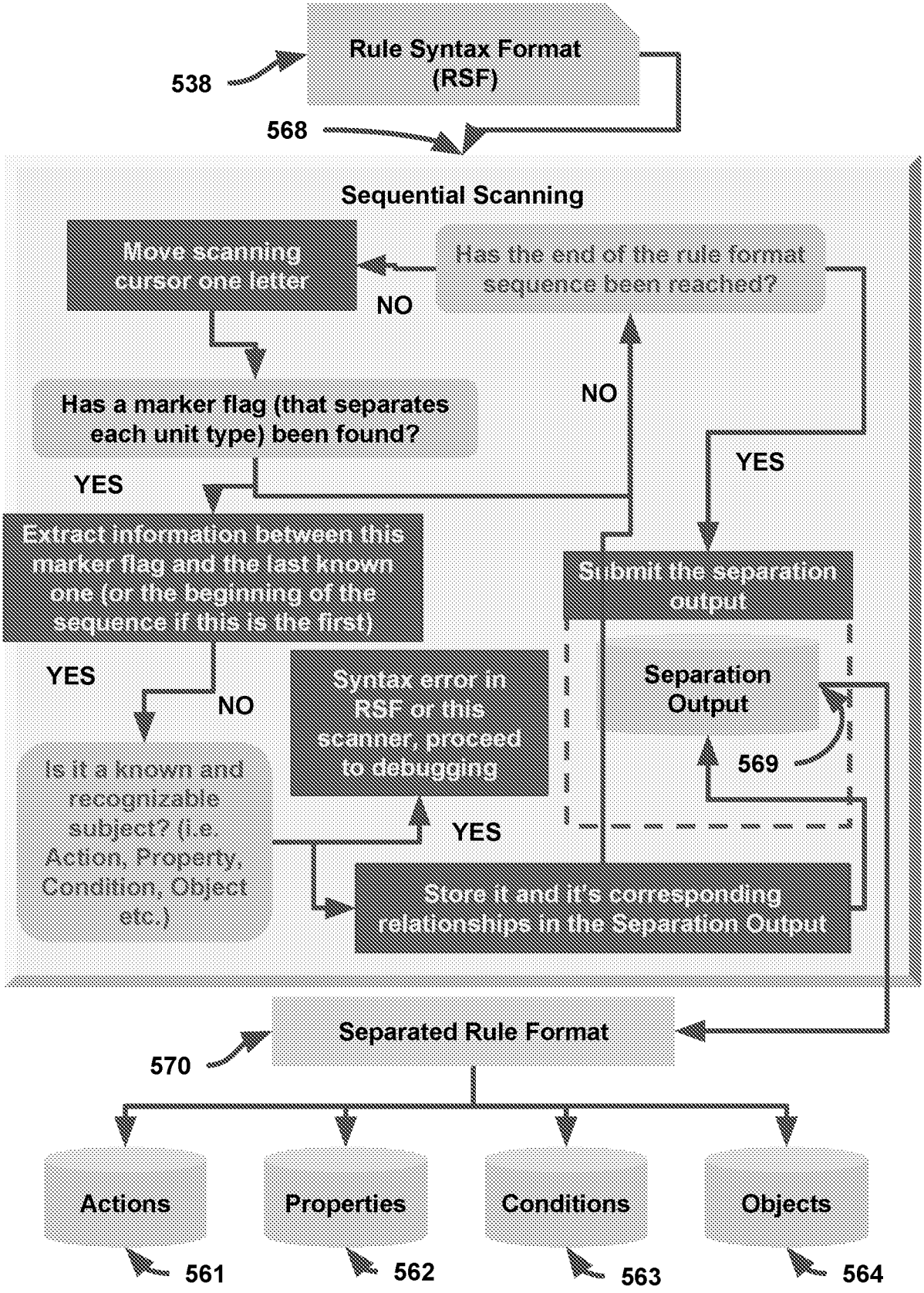

Rule Syntax Format (RSF)
538
568
Sequential Scanning
Move scanning cursor one letter
Has the end of the rule format sequence been reached?
NO
Has a marker flag (that separates each unit type) been found?
NO
YES
YES
Extract information between this marker flag and the last known one (or the beginning of the sequence if this is the first)
Submit the separation output
YES
NO
Syntax error in RSF or this scanner, proceed to debugging
Separation Output
569
Is it a known and recognizable subject? (i.e. Action, Property, Condition, Object etc.)
YES
Store it and it's corresponding relationships in the Separation Output
Separated Rule Format
570
Actions
Properties
Conditions
Objects
561
562
563
564

FIG. 87

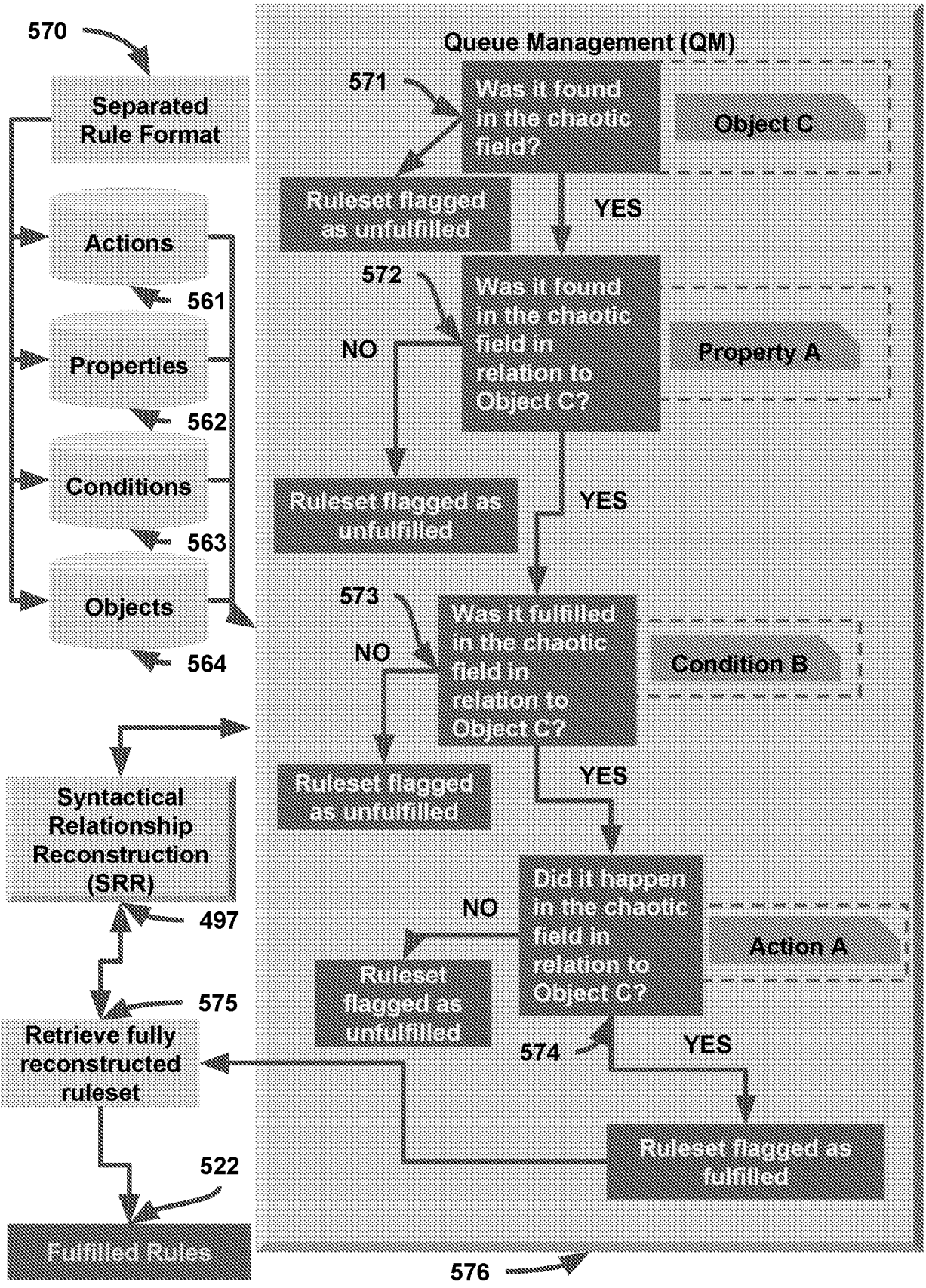

570
Separated Rule Format
Actions
561
Properties
562
Conditions
563
Objects
564
Syntactical Relationship Reconstruction (SRR)
497
575
Retrieve fully reconstructed ruleset
522
Fulfilled Rules
Queue Management (QM)
571
Was it found in the chaotic field?
Object C
Ruleset flagged as unfulfilled
YES
572
Was it found in the chaotic field in relation to Object C?
NO
Property A
Ruleset flagged as unfulfilled
YES
573
Was it fulfilled in the chaotic field in relation to Object C?
NO
Condition B
Ruleset flagged as unfulfilled
YES
Did it happen in the chaotic field in relation to Object C?
NO
Action A
Ruleset flagged as unfulfilled
574
YES
Ruleset flagged as fulfilled
576

FIG. 88

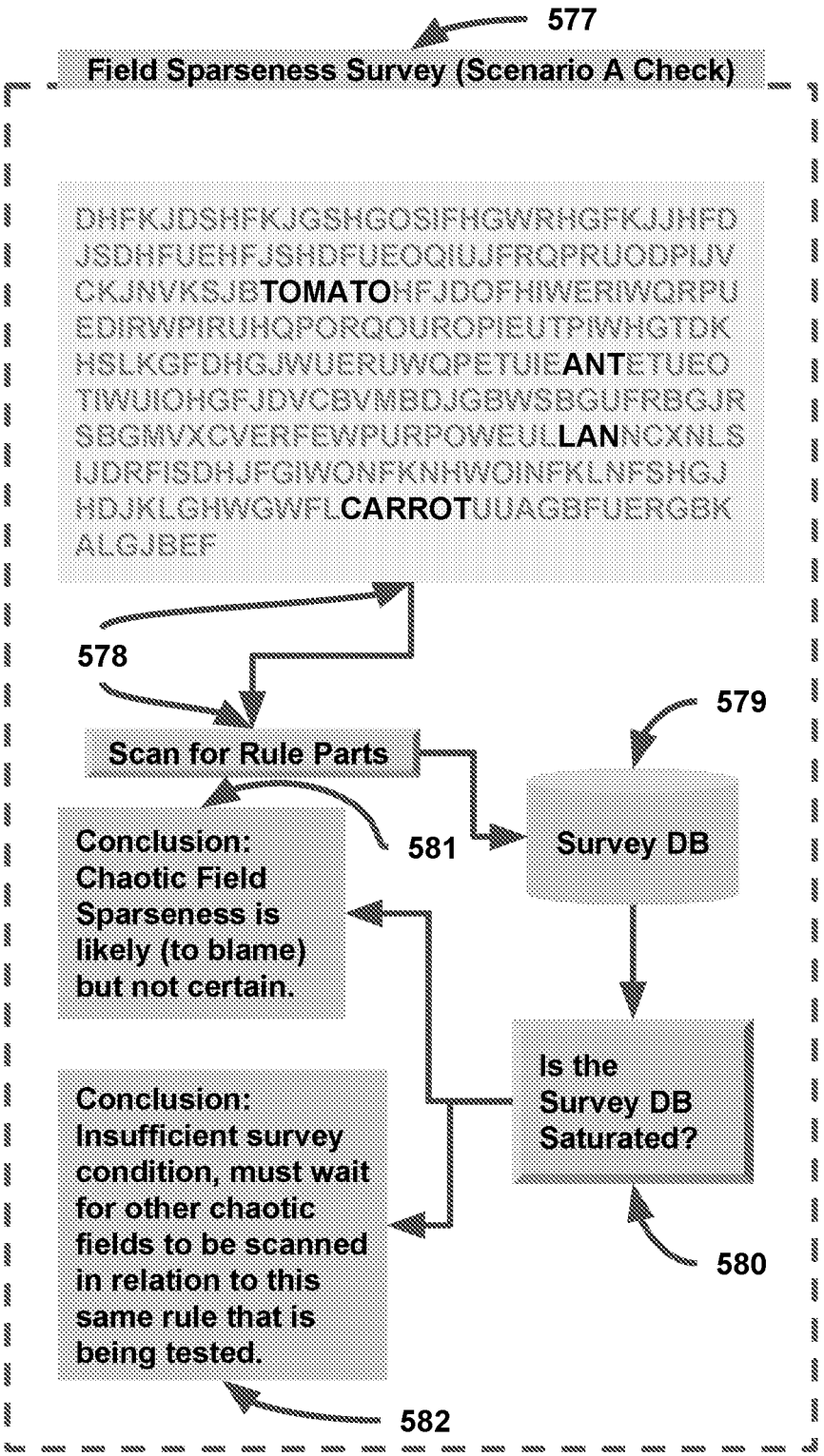

577
Field Sparseness Survey (Scenario A Check)
DHFKJDSHFKJGSHGOSIFHGWRHGFKJJHFD
JSDHFUEHFJSHDFUEOQIUJFRQPRUODPIJV
CKJNVKSJBTOMATOHFJDOFHIWERIWQRPU
EDIRWPIRUHQPORQOUROPIEUTPIWHGTDK
HSLKGFDHGJWUERUWQPETUIEANTETUEO
TIWUIOHGFJDVCBVMBDJGBWSBGUFRBGJR
SBGMVXCVERFEWPURPOWEULLANNCXNLS
IJDRFISDHJFGIWONFKNHWOINFKLNFSHGJ
HDJKLGHWGWFLCARROTUUAGBFUERGBK
ALGJBEF
578
579
Scan for Rule Parts
Survey DB
581
Conclusion: Chaotic Field Sparseness is likely (to blame) but not certain.
Is the Survey DB Saturated?
580
Conclusion: Insufficient survey condition, must wait for other chaotic fields to be scanned in relation to this same rule that is being tested.
582

FIG. 89

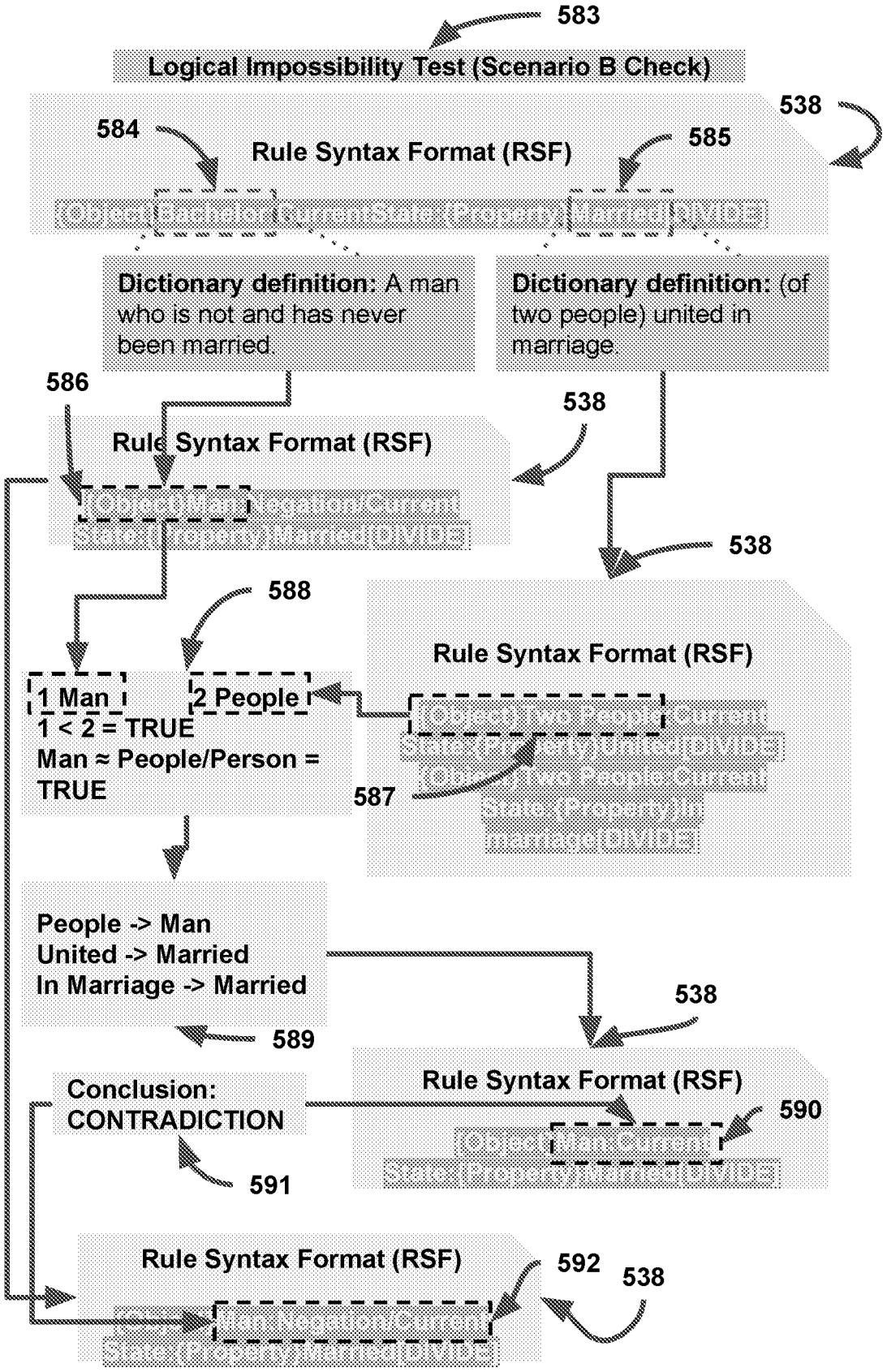

583
Logical Impossibility Test (Scenario B Check)
538
584
Rule Syntax Format (RSF)
585
Dictionary definition: A man who is not and has never been married.
Dictionary definition: (of two people) united in marriage.
586
538
Rule Syntax Format (RSF)
538
588
Rule Syntax Format (RSF)
1 Man
2 People
1 < 2 = TRUE
Man ≈ People/Person = TRUE
587
People -> Man
United -> Married
In Marriage -> Married
538
589
Rule Syntax Format (RSF)
Conclusion:
CONTRADICTION
590
591
Rule Syntax Format (RSF)
592
538

FIG. 90

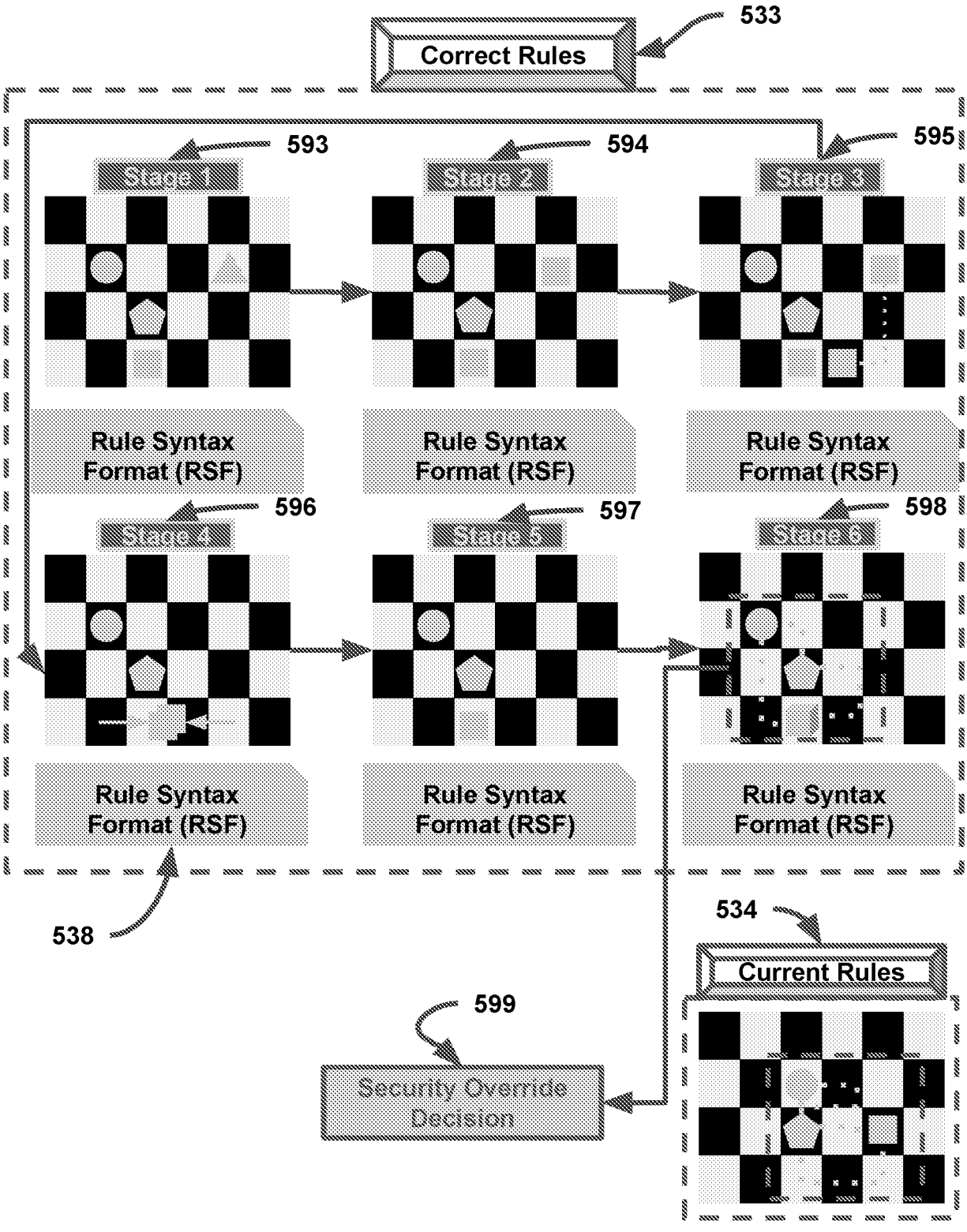

533
Correct Rules
593
594
595
Stage 1
Stage 2
Stage 3
Rule Syntax Format (RSF)
Rule Syntax Format (RSF)
Rule Syntax Format (RSF)
596
597
598
Stage 4
Stage 5
Stage 6
Rule Syntax Format (RSF)
Rule Syntax Format (RSF)
Rule Syntax Format (RSF)
538
534
Current Rules
599
Security Override Decision

FIG. 91

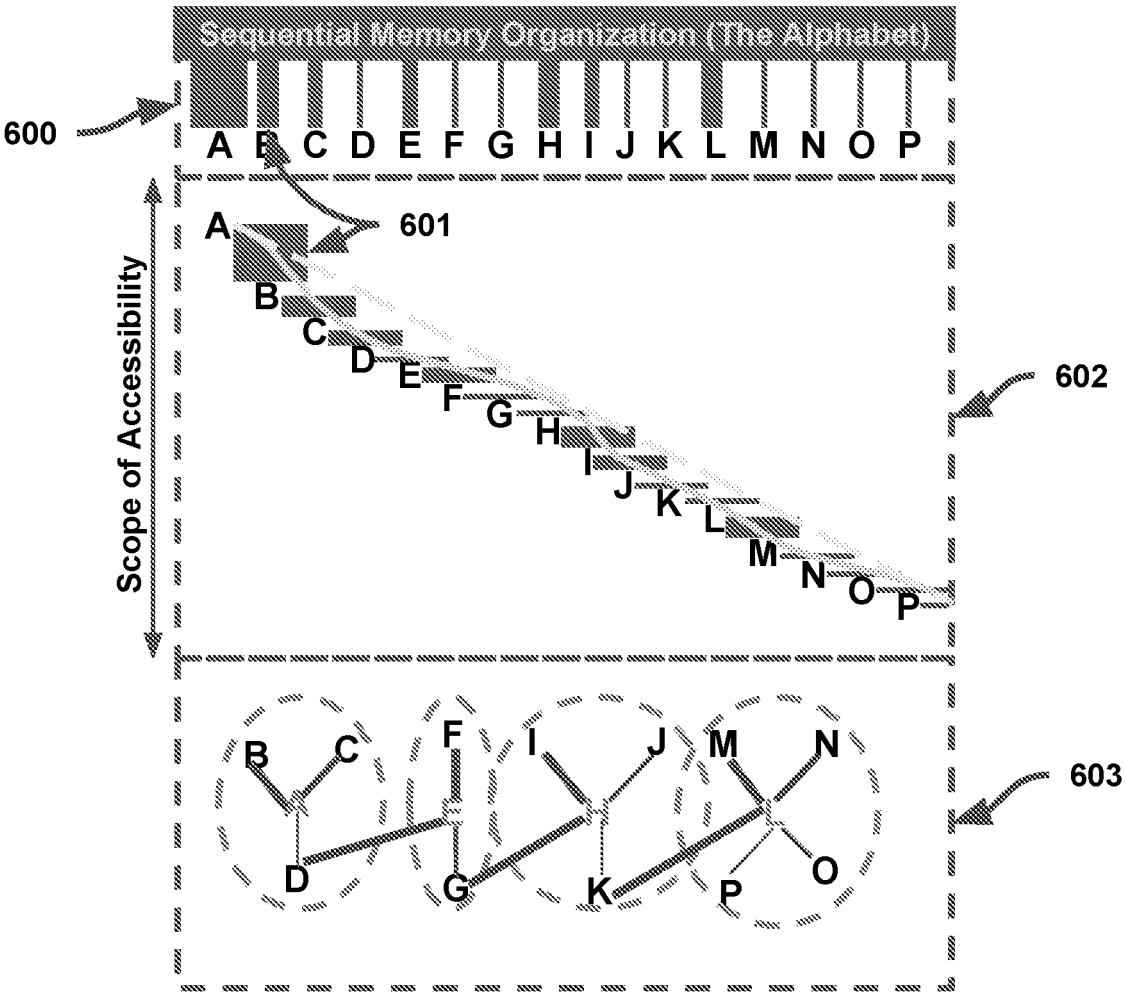

Sequential Memory Organization (The Alphabet)
600
A B C D E F G H I J K L M N O P
601
Scope of Accessibility
602
603

FIG. 92

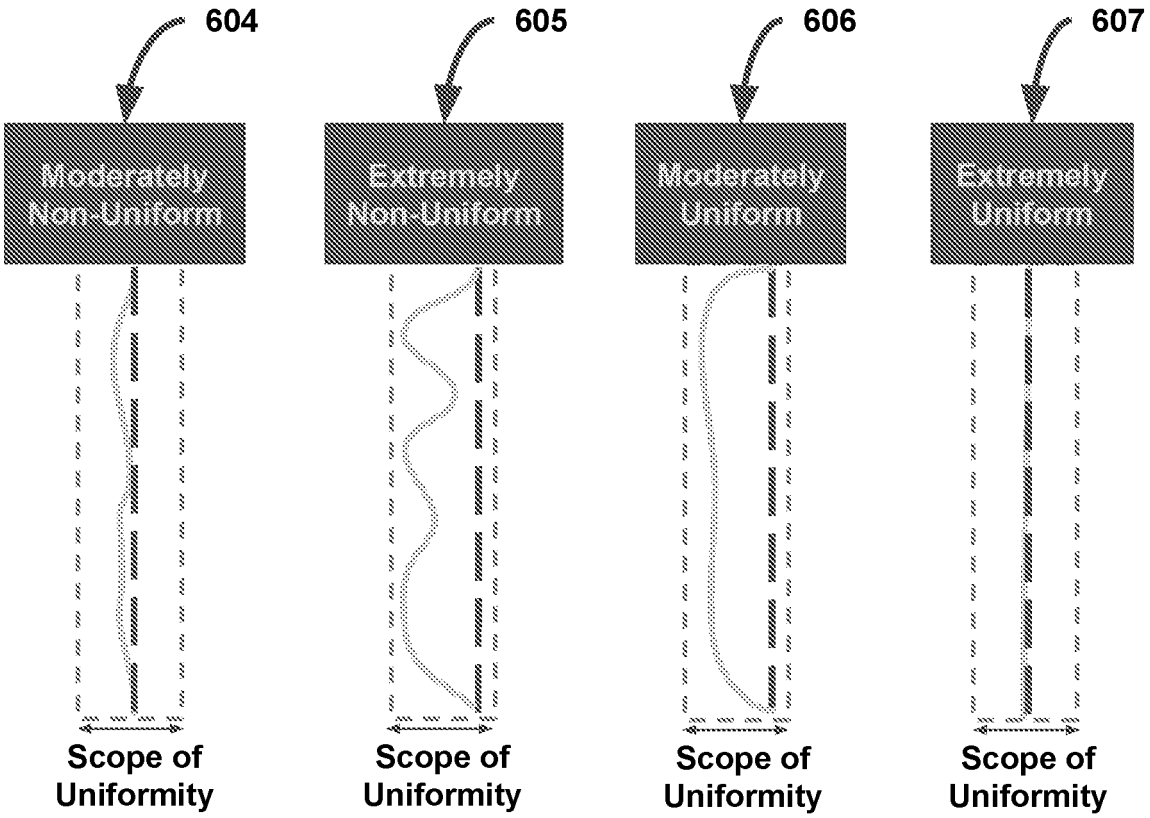

604
Moderately Non-Uniform
Scope of Uniformity
605
Extremely Non-Uniform
Scope of Uniformity
606
Moderately Uniform
Scope of Uniformity
607
Extremely Uniform
Scope of Uniformity

FIG. 93

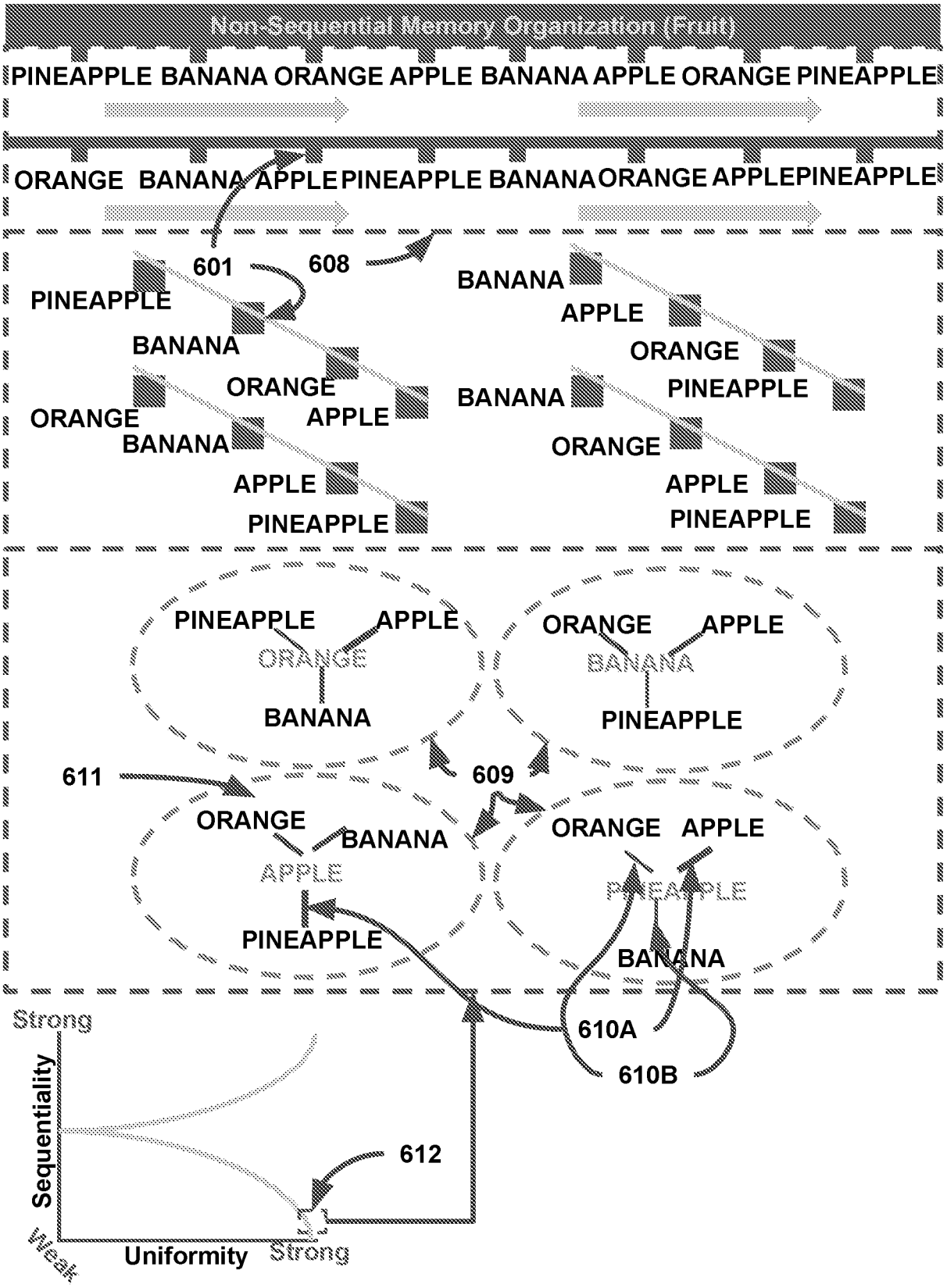

Non-Sequential Memory Organization (Fruit)
PINEAPPLE BANANA ORANGE APPLE BANANA APPLE ORANGE PINEAPPLE
ORANGE BANANA APPLE PINEAPPLE BANANA ORANGE APPLE PINEAPPLE
601
608
PINEAPPLE
BANANA
ORANGE
APPLE
ORANGE
BANANA
APPLE
PINEAPPLE
BANANA
APPLE
ORANGE
BANANA
PINEAPPLE
ORANGE
APPLE
PINEAPPLE
PINEAPPLE APPLE
ORANGE
BANANA
ORANGE APPLE
BANANA
PINEAPPLE
611
609
ORANGE
BANANA
APPLE
PINEAPPLE
ORANGE APPLE
PINEAPPLE
BANANA
610A
610B
Strong
Sequentiality
Weak
612
Uniformity
Strong

FIG. 94

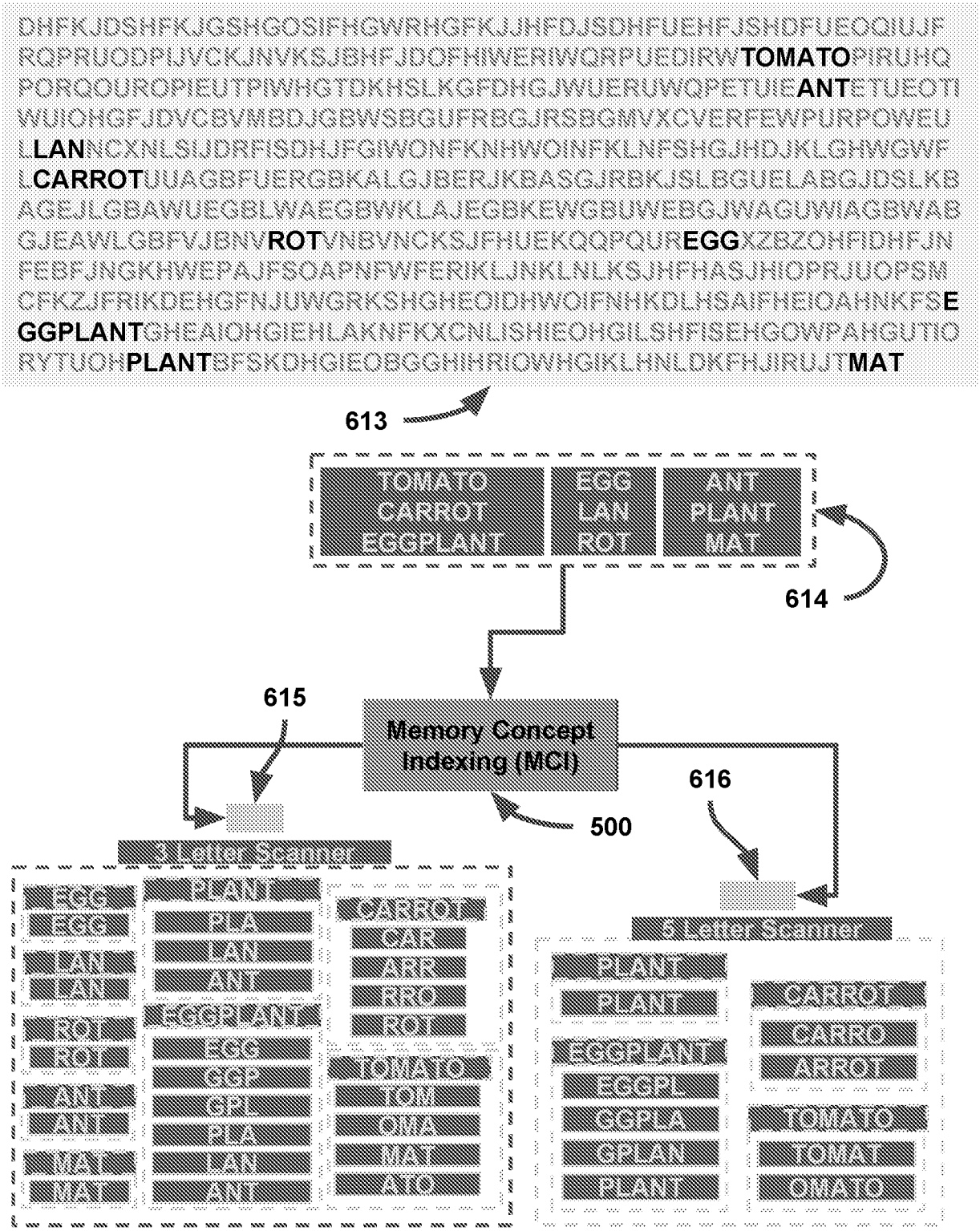

DHFKJDSHFKJGSHGOSIFHGWRHGFKJJHFDJSDHFUEHFJSHDFUEOQIUJF
RQPRUODPIJVCKJNVKSJBHFJDOFHIWERIWQRPUEDIRWTOMATOPIRUHQ
PORQOUROPIEUTPIWHGTDKHSLKGFDHGJWUERUWQPETUIEANTETUEOTI
WUIOHGFJDVCBVMBDJGBWSBGUFRBGJRSBGMVXCVERFEWPURPOWEU
LLANNCXNLSIJDRFISDHJFGIWONFKNHWOINFKLNFSHGJHDJKLGHWGWF
LCARROTUUAGBFUERGBKALGJBERJKBASGJRBKJSLBGUELABGJDSLKB
AGEJLGBAWUEGBLWAEGBWKLAJEGBKEWGBUWEBGJWAGUWIAGBWAB
GJEAWLGBFVJBNVROTVNBVNCKSJFHUEKQQPQUREGGXZBZOHFIDHFJN
FEBFJNGKHWEPAJFSOAPNFWFERIKLJNKLNLKSJHFHASJHIOPRJUOPSM
CFKZJFRIKDEHGFNJUWGRKSHGHEOIDHWOIFNHKDLHSAIFHEIOAHNKFSE
GGPLANTGHEAIOHGIEHLAKNFKXCNLISHIEOHGILSHFISEHGOWPAHGUTIO
RYTUOHPLANTBFSKDHGIEOBGGHIHRIOWHGIKLHNLDKFHJIRUJTMAT
613
TOMATO
CARROT
EGGPLANT
EGG
LAN
ROT
ANT
PLANT
MAT
614
615
Memory Concept Indexing (MCI)
616
500
3 Letter Scanner
5 Letter Scanner

FIG. 95

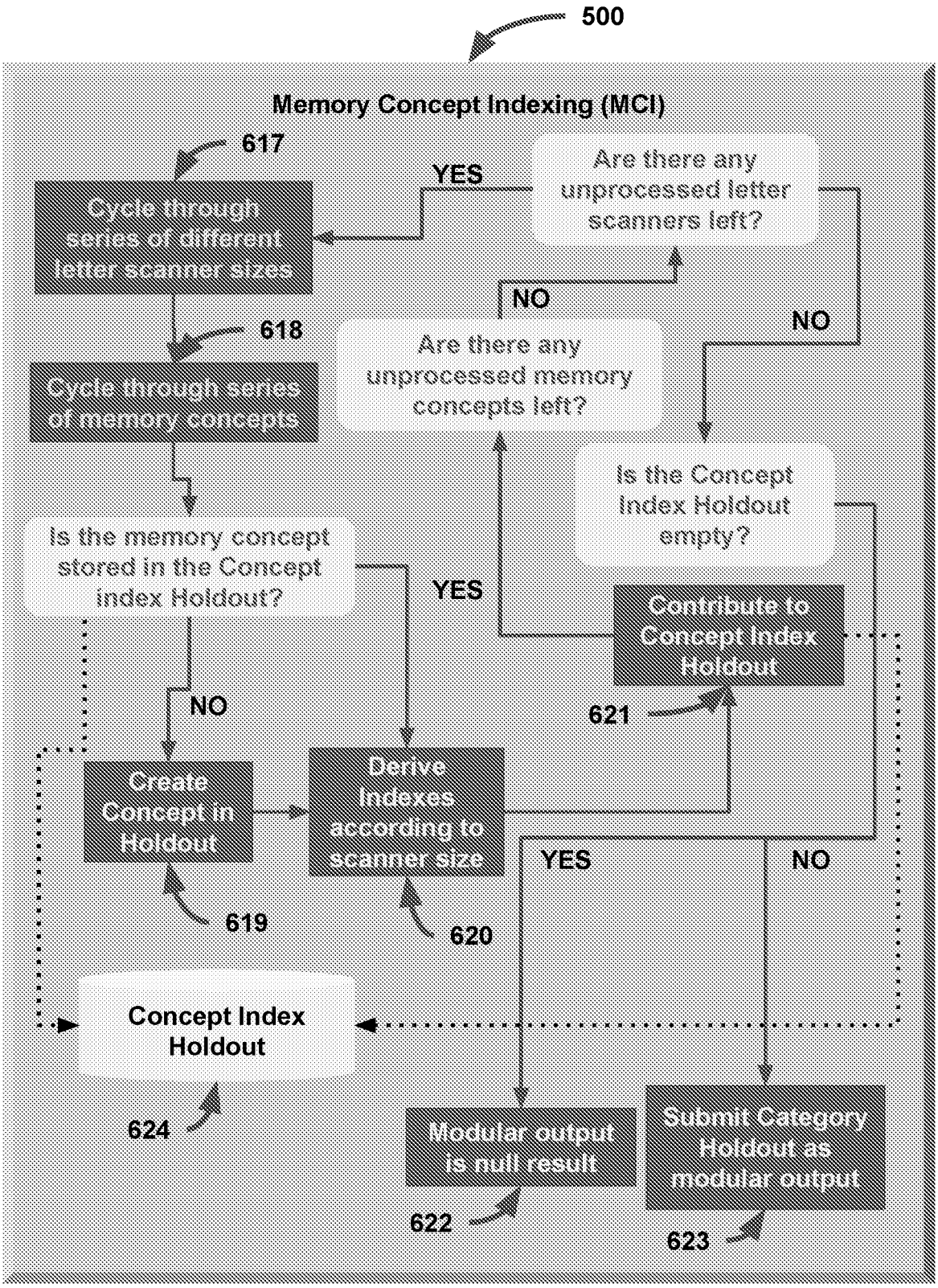

500
Memory Concept Indexing (MCI)
617
Cycle through series of different letter scanner sizes
YES
Are there any unprocessed letter scanners left?
NO
NO
618
Cycle through series of memory concepts
Are there any unprocessed memory concepts left?
Is the Concept Index Holdout empty?
Is the memory concept stored in the Concept index Holdout?
YES
Contribute to Concept Index Holdout
621
NO
Create Concept in Holdout
Derive Indexes according to scanner size
YES
NO
619
620
Concept Index Holdout
624
Modular output is null result
Submit Category Holdout as modular output
622
623

FIG. 96

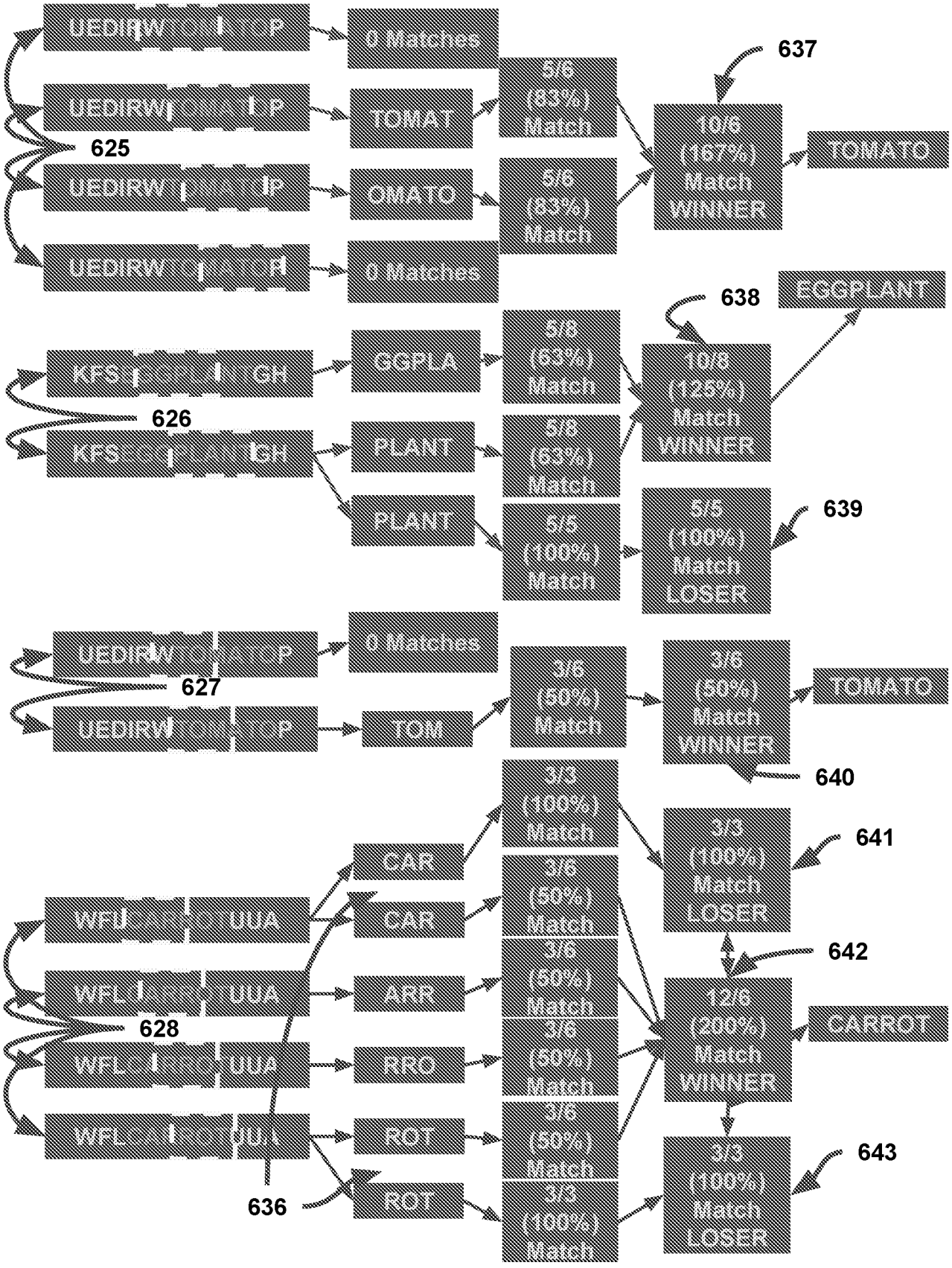

0 Matches
TOMAT
OMATO
0 Matches
5/6 (83%) Match
5/6 (83%) Match
10/6 (167%) Match WINNER
TOMATO
637
625
GGPLA
PLANT
PLANT
5/8 (63%) Match
5/8 (63%) Match
5/5 (100%) Match
10/8 (125%) Match WINNER
EGGPLANT
638
5/5 (100%) Match LOSER
639
626
0 Matches
TOM
3/6 (50%) Match
3/6 (50%) Match WINNER
TOMATO
640
627
CAR
CAR
ARR
RRO
ROT
ROT
3/3 (100%) Match
3/6 (50%) Match
3/6 (50%) Match
3/6 (50%) Match
3/6 (50%) Match
3/3 (100%) Match
3/3 (100%) Match LOSER
641
642
12/6 (200%) Match WINNER
CARROT
628
643
636

FIG. 97

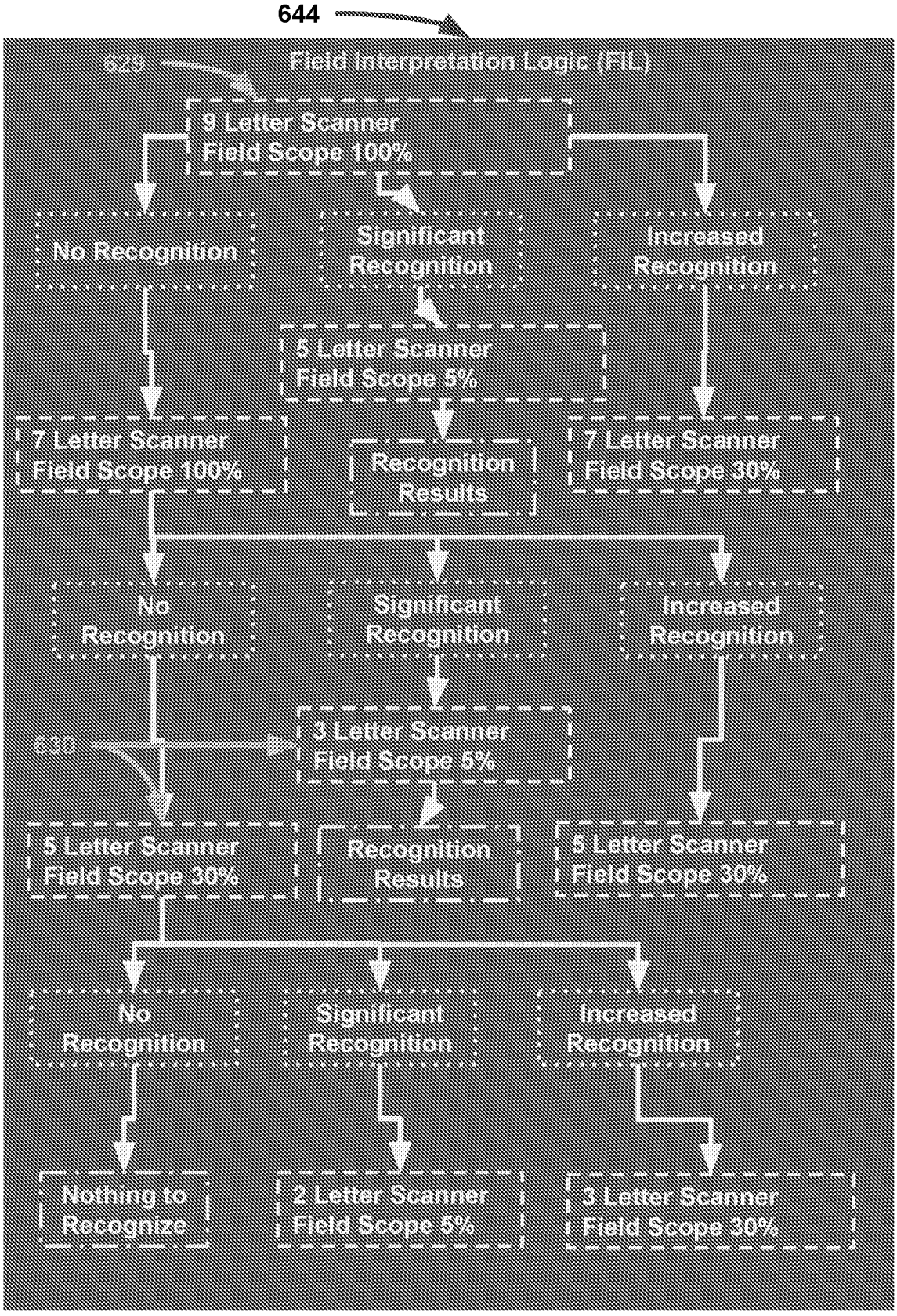

644
628
Field Interpretation Logic (FIL)
9 Letter Scanner
Field Scope 100%
No Recognition
Significant Recognition
Increased Recognition
5 Letter Scanner
Field Scope 5%
7 Letter Scanner
Field Scope 100%
Recognition Results
7 Letter Scanner
Field Scope 30%
No Recognition
Significant Recognition
Increased Recognition
630
3 Letter Scanner
Field Scope 5%
5 Letter Scanner
Field Scope 30%
Recognition Results
5 Letter Scanner
Field Scope 30%
No Recognition
Significant Recognition
Increased Recognition
Nothing to Recognize
2 Letter Scanner
Field Scope 5%
3 Letter Scanner
Field Scope 30%

FIG. 98

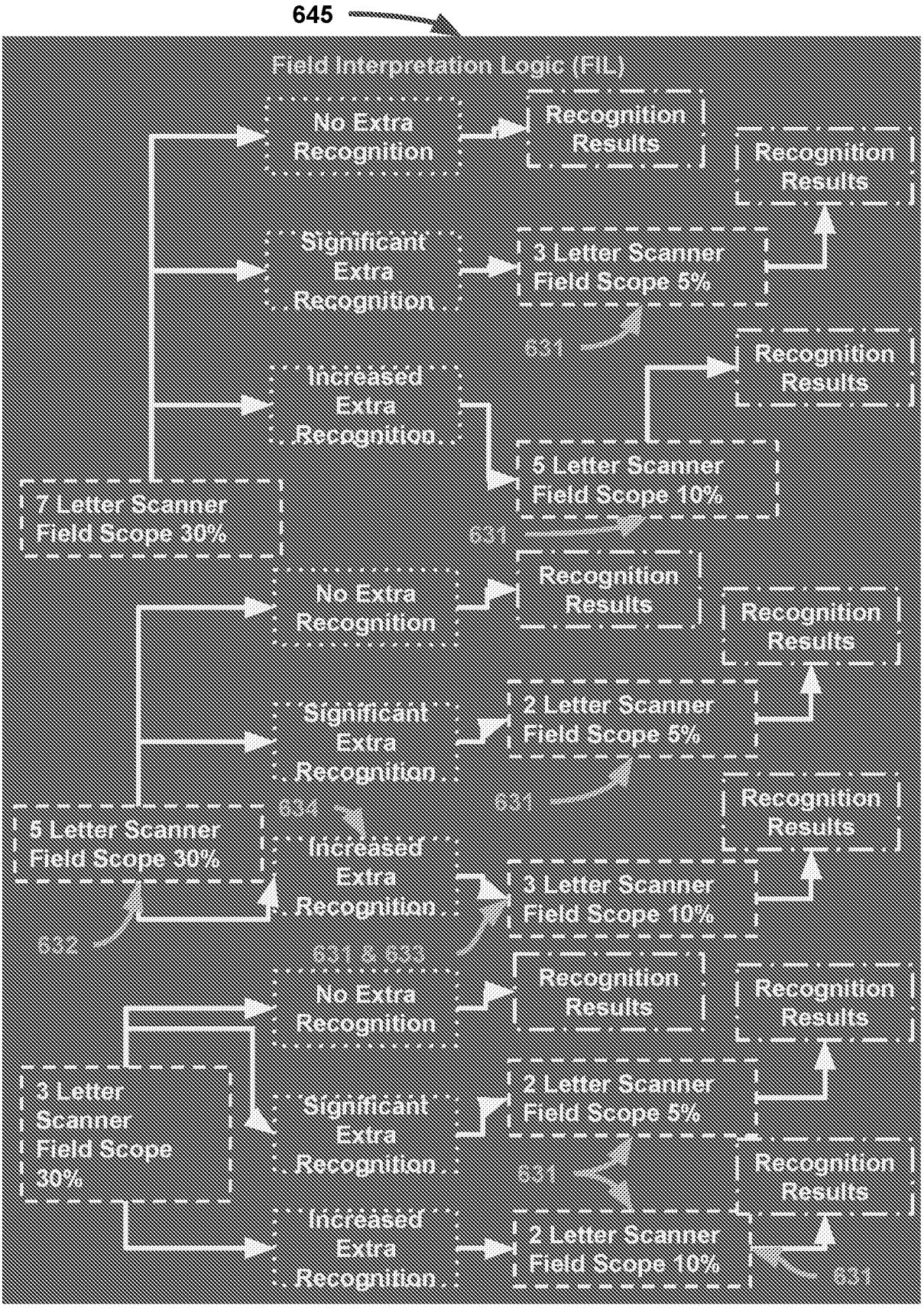

645
Field Interpretation Logic (FIL)
No Extra Recognition
Recognition Results
Significant Extra Recognition
3 Letter Scanner Field Scope 5%
631
Recognition Results
Increased Extra Recognition
5 Letter Scanner Field Scope 10%
631
Recognition Results
7 Letter Scanner Field Scope 30%
No Extra Recognition
Recognition Results
Significant Extra Recognition
2 Letter Scanner Field Scope 5%
631
Recognition Results
Increased Extra Recognition
3 Letter Scanner Field Scope 10%
631 & 639
Recognition Results
5 Letter Scanner Field Scope 30%
632
No Extra Recognition
Recognition Results
Significant Extra Recognition
2 Letter Scanner Field Scope 5%
631
Recognition Results
Increased Extra Recognition
2 Letter Scanner Field Scope 10%
631
Recognition Results
3 Letter Scanner Field Scope 30%

FIG. 99

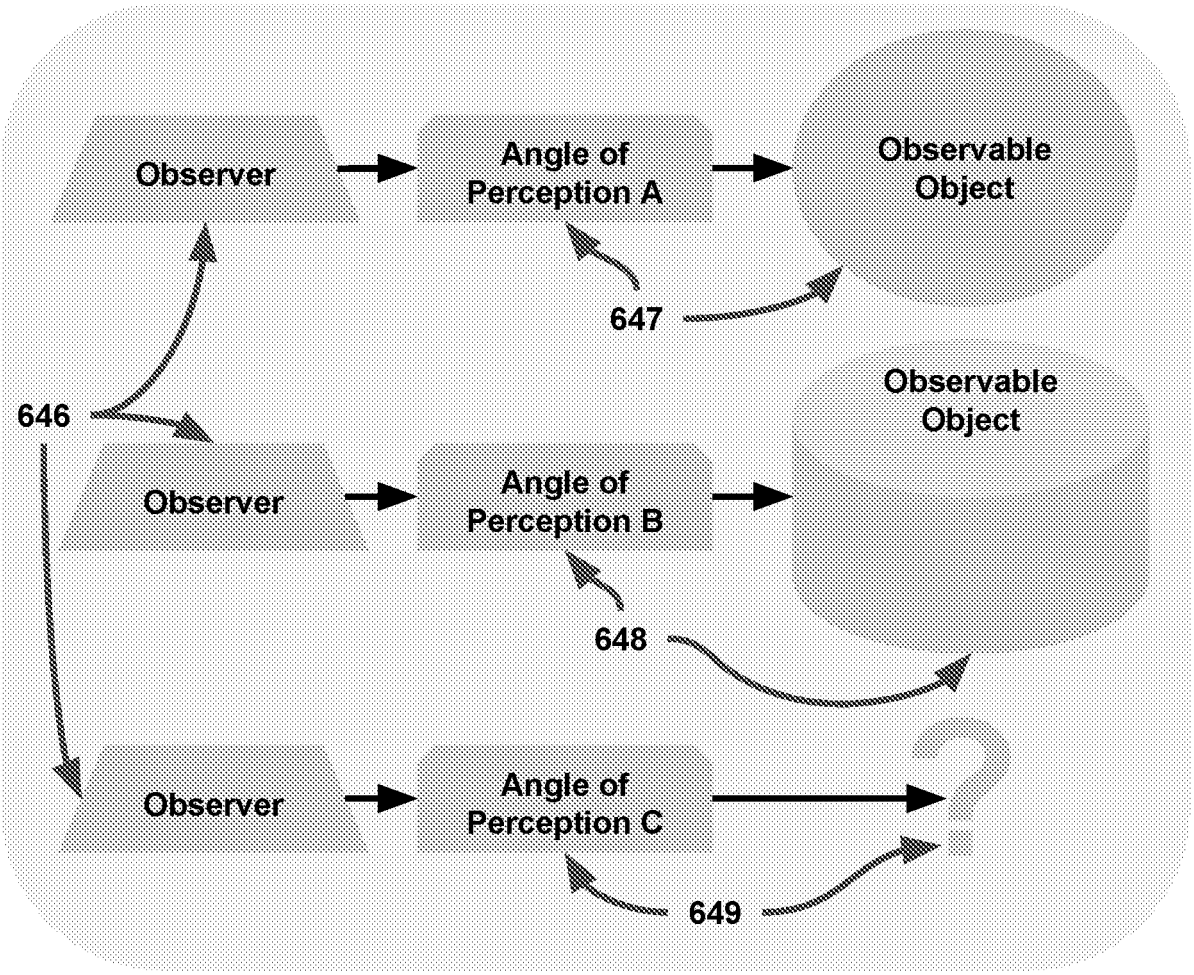

Observer
Angle of Perception A
Observable Object
647
646
Observer
Angle of Perception B
Observable Object
648
Observer
Angle of Perception C
649

FIG. 100

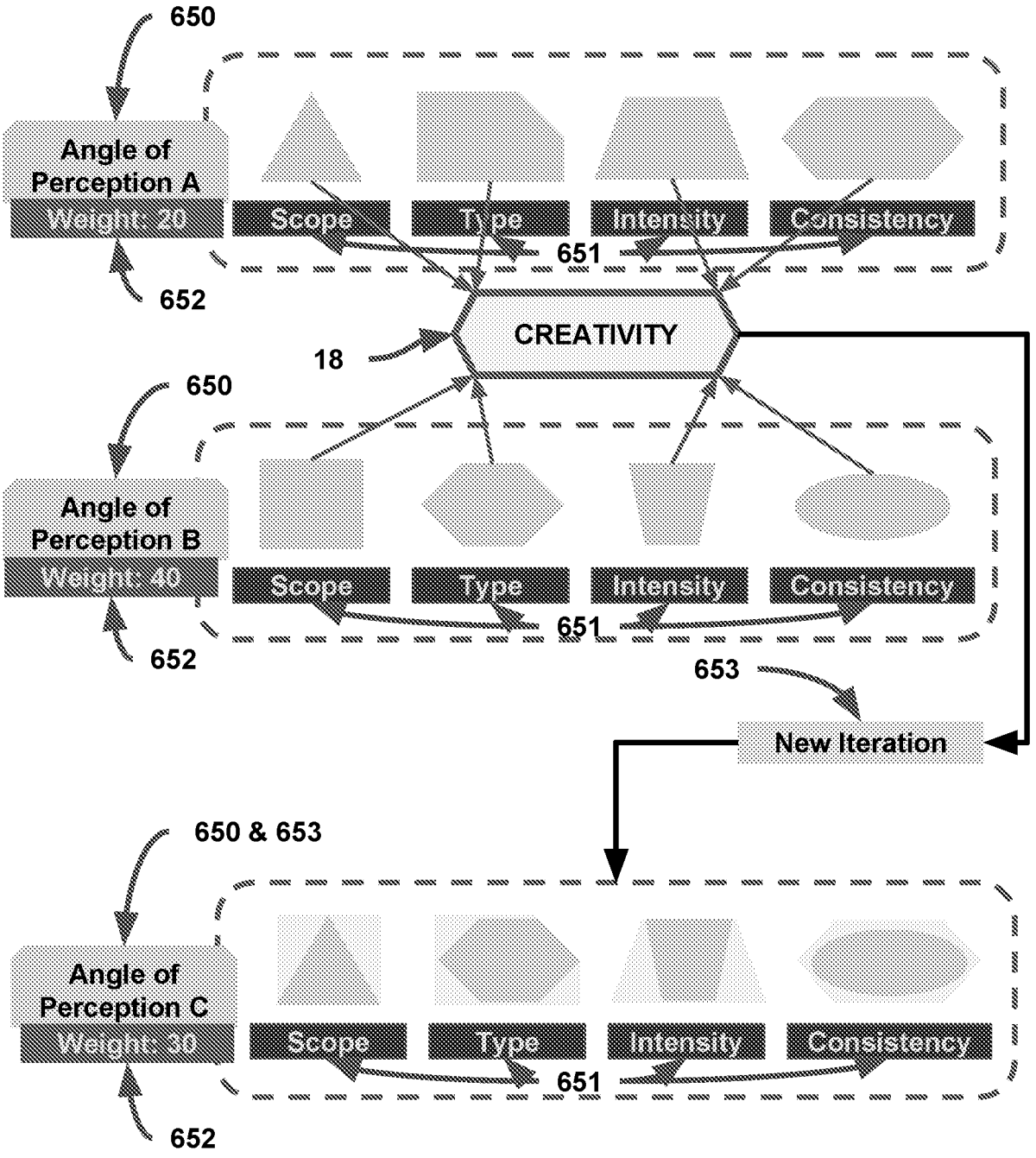

650
Angle of Perception A
Weight: 20
Scope
Type
Intensity
Consistency
651
652
CREATIVITY
18
650
Angle of Perception B
Weight: 40
Scope
Type
Intensity
Consistency
651
652
653
New Iteration
650 & 653
Angle of Perception C
Weight: 30
Scope
Type
Intensity
Consistency
651
652

FIG. 101

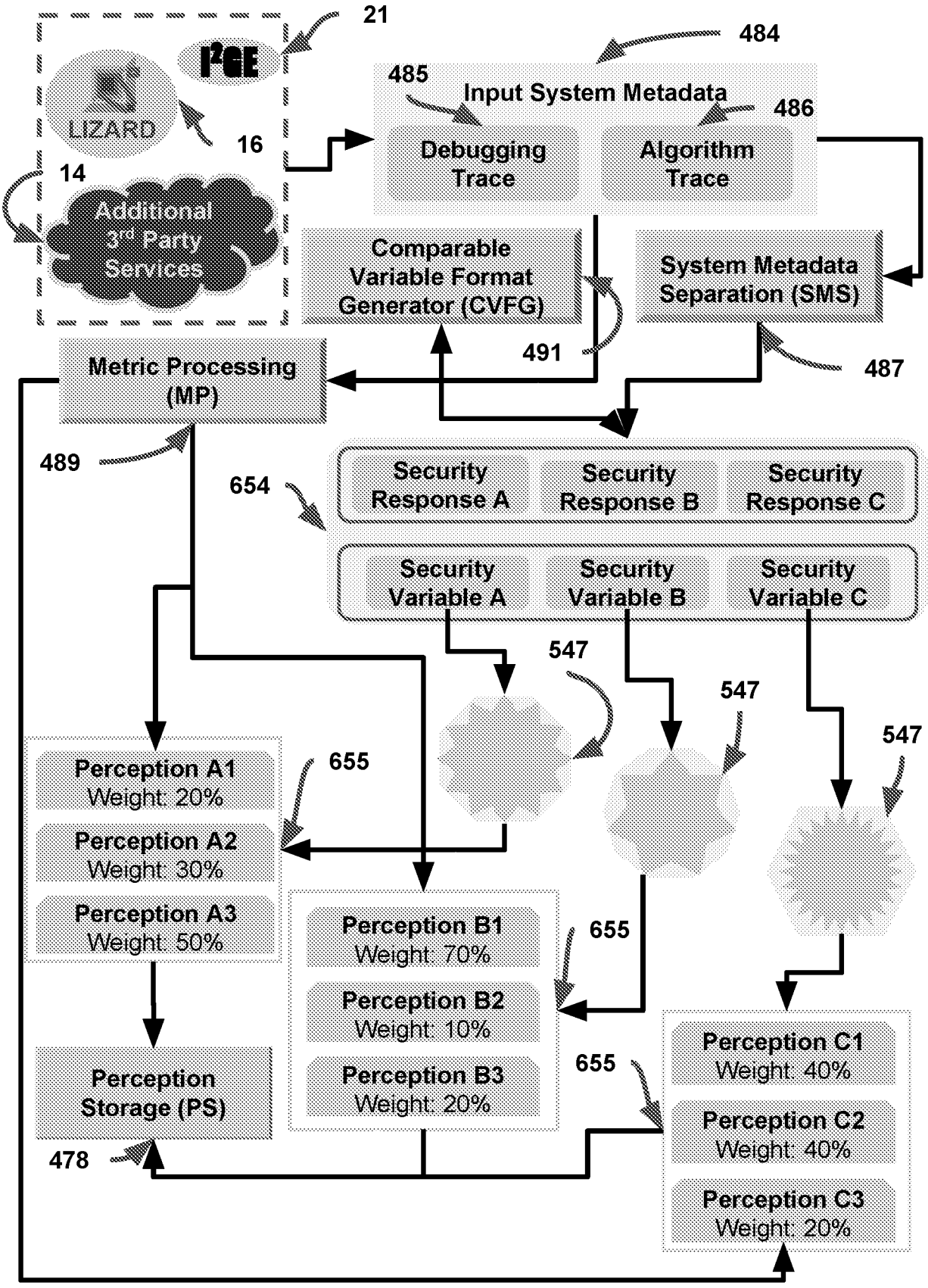

21
I²CE
LIZARD
16
14
Additional 3rd Party Services
484
485
Input System Metadata
486
Debugging Trace
Algorithm Trace
Comparable Variable Format Generator (CVFG)
System Metadata Separation (SMS)
491
487
Metric Processing (MP)
489
654
Security Response A
Security Response B
Security Response C
Security Variable A
Security Variable B
Security Variable C
547
547
547
655
Perception A1
Weight: 20%
Perception A2
Weight: 30%
Perception A3
Weight: 50%
Perception B1
Weight: 70%
Perception B2
Weight: 10%
Perception B3
Weight: 20%
655
655
Perception C1
Weight: 40%
Perception C2
Weight: 40%
Perception C3
Weight: 20%
Perception Storage (PS)
478

FIG. 102

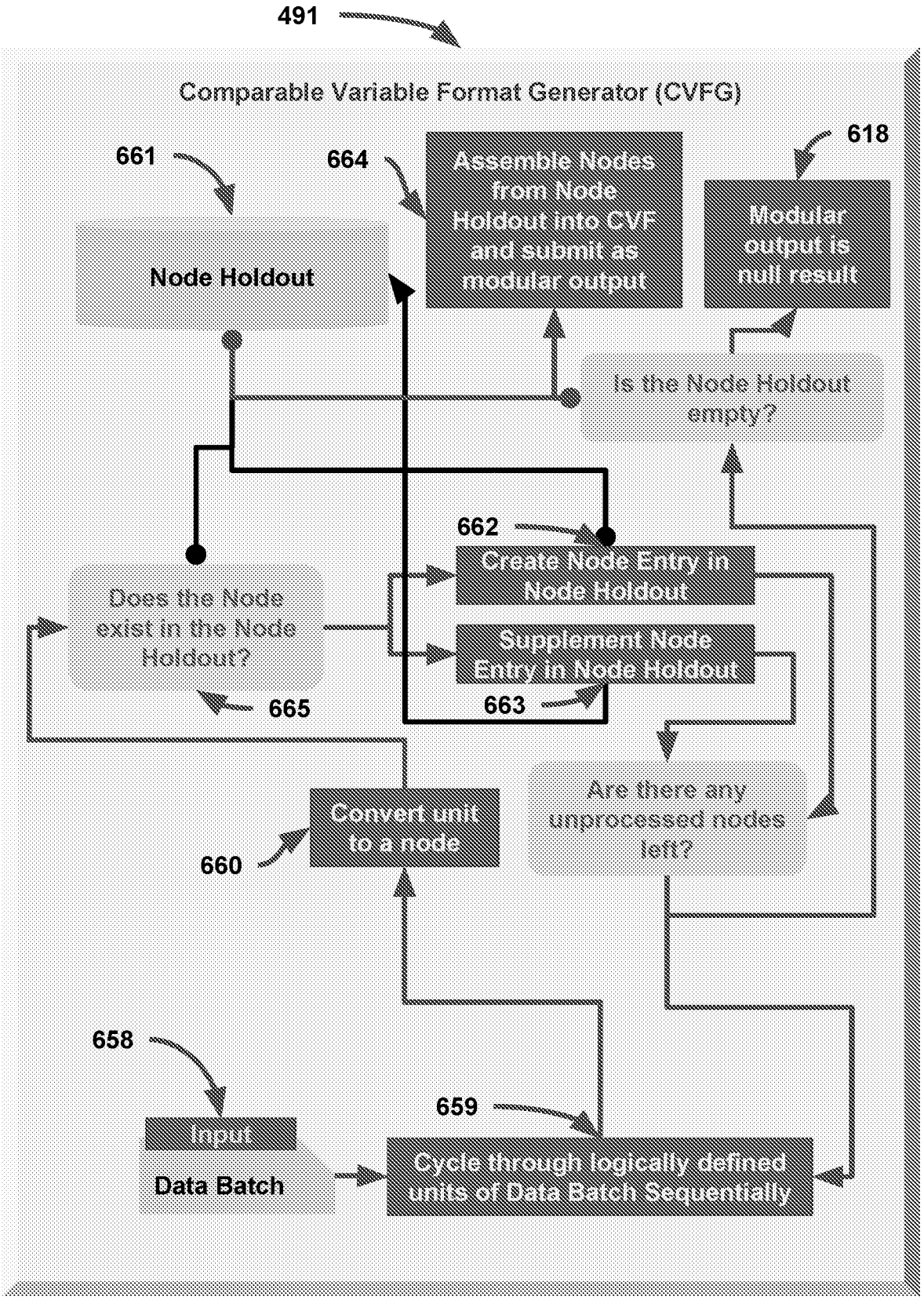

491
Comparable Variable Format Generator (CVFG)
661
Node Holdout
664
Assemble Nodes from Node Holdout into CVF and submit as modular output
618
Modular output is null result
Is the Node Holdout empty?
662
Create Node Entry in Node Holdout
Supplement Node Entry in Node Holdout
663
Does the Node exist in the Node Holdout?
665
Convert unit to a node
660
Are there any unprocessed nodes left?
658
Input Data Batch
659
Cycle through logically defined units of Data Batch Sequentially

FIG. 103

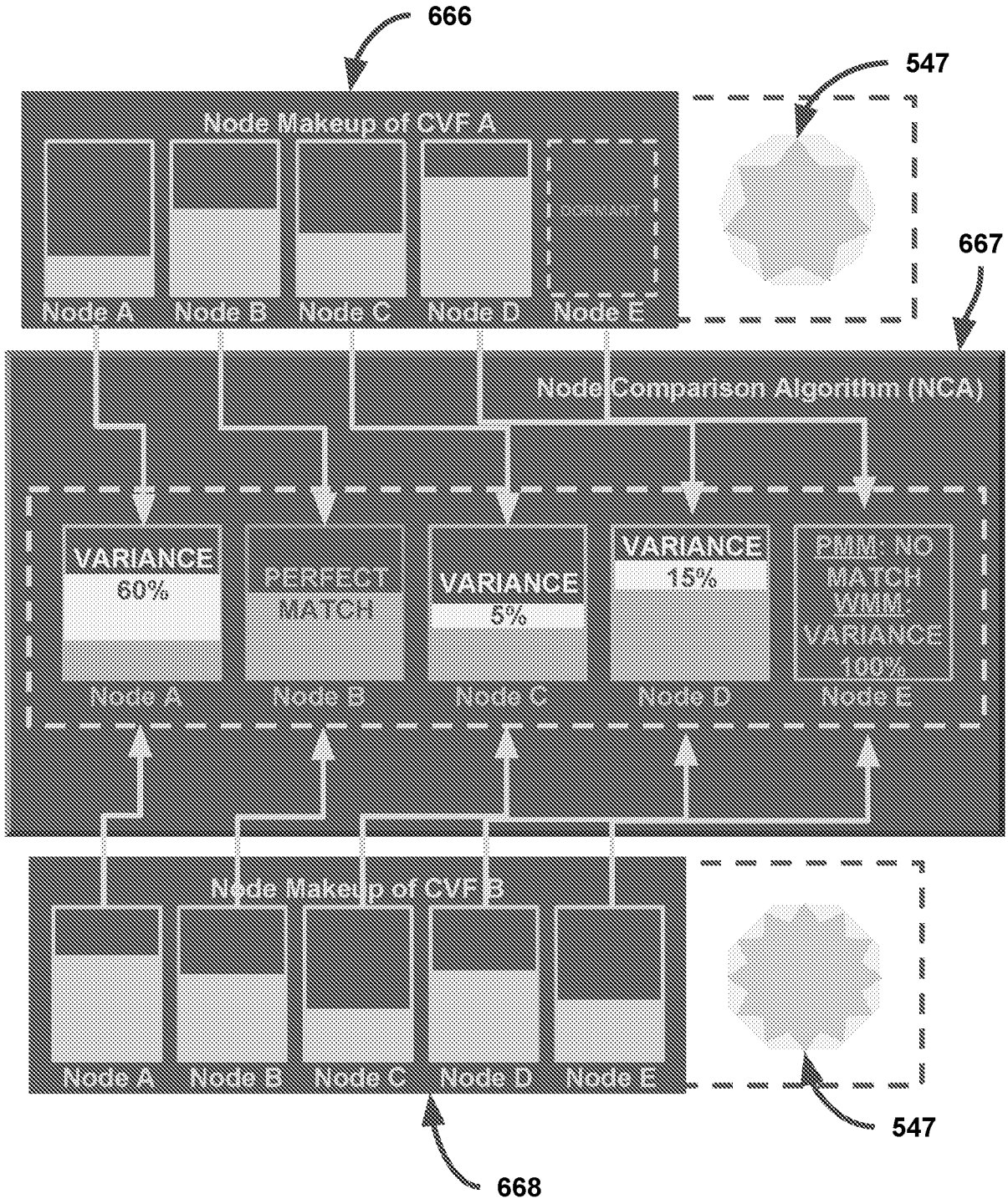

666
547
Node Makeup of CVF A
667
Node A
Node B
Node C
Node D
Node E
Node Comparison Algorithm (NCA)
VARIANCE
60%
PERFECT
MATCH
VARIANCE
5%
VARIANCE
15%
PMM NO
MATCH
YMM
VARIANCE
100%
Node A
Node B
Node C
Node D
Node E
Node Makeup of CVF B
Node A
Node B
Node C
Node D
Node E
547
668

FIG. 104

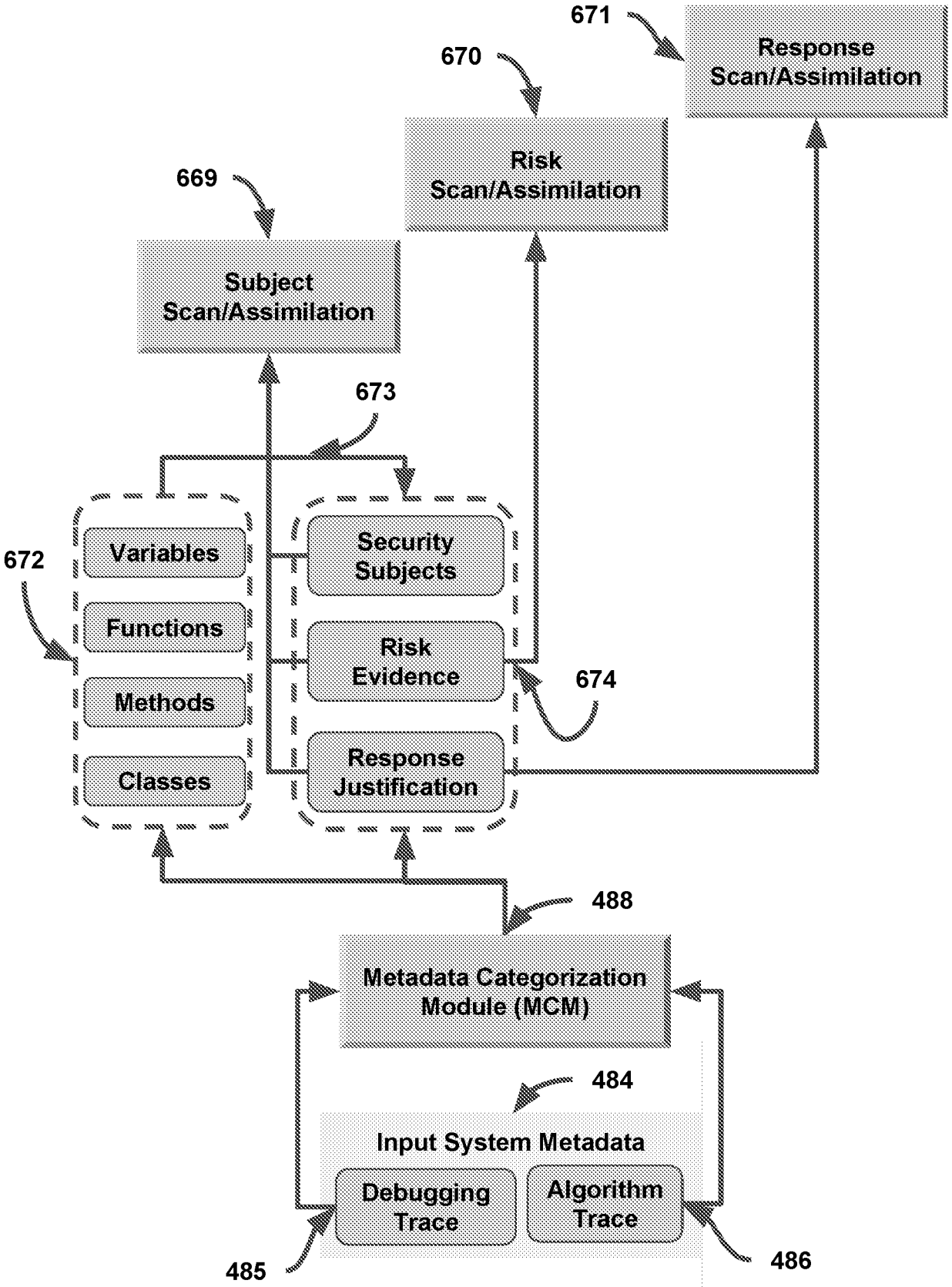

671
Response Scan/Assimilation
670
Risk Scan/Assimilation
669
Subject Scan/Assimilation
673
672
Variables
Functions
Methods
Classes
Security Subjects
Risk Evidence
Response Justification
674
488
Metadata Categorization Module (MCM)
484
Input System Metadata
Debugging Trace
Algorithm Trace
485
486

FIG. 105

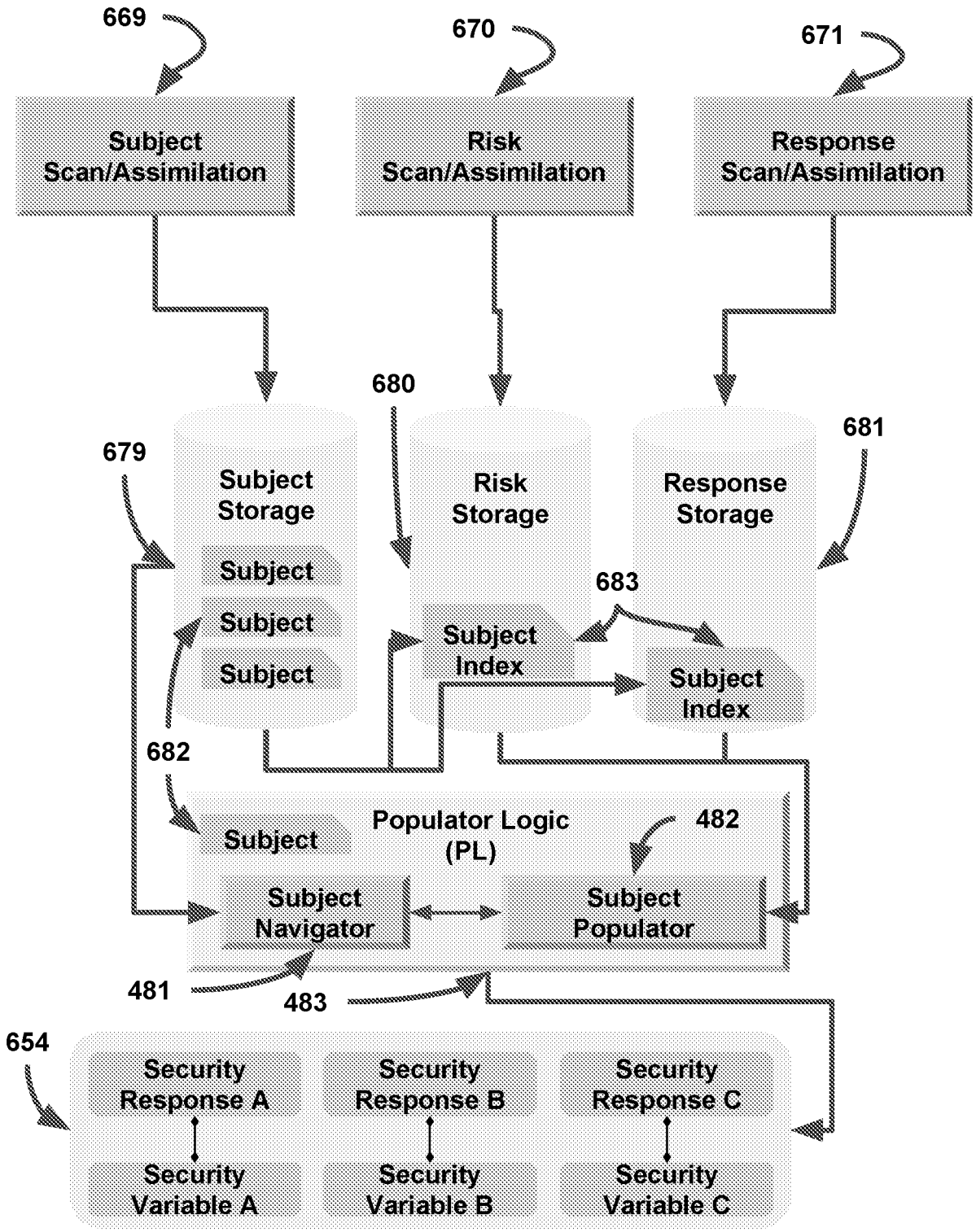

669
670
671
Subject Scan/Assimilation
Risk Scan/Assimilation
Response Scan/Assimilation
680
679
681
Subject Storage
Subject
Subject
Subject
Risk Storage
Response Storage
683
Subject Index
Subject Index
682
Subject
Populator Logic (PL)
482
Subject Navigator
Subject Populator
481
483
654
Security Response A
Security Response B
Security Response C
Security Variable A
Security Variable B
Security Variable C

FIG. 106

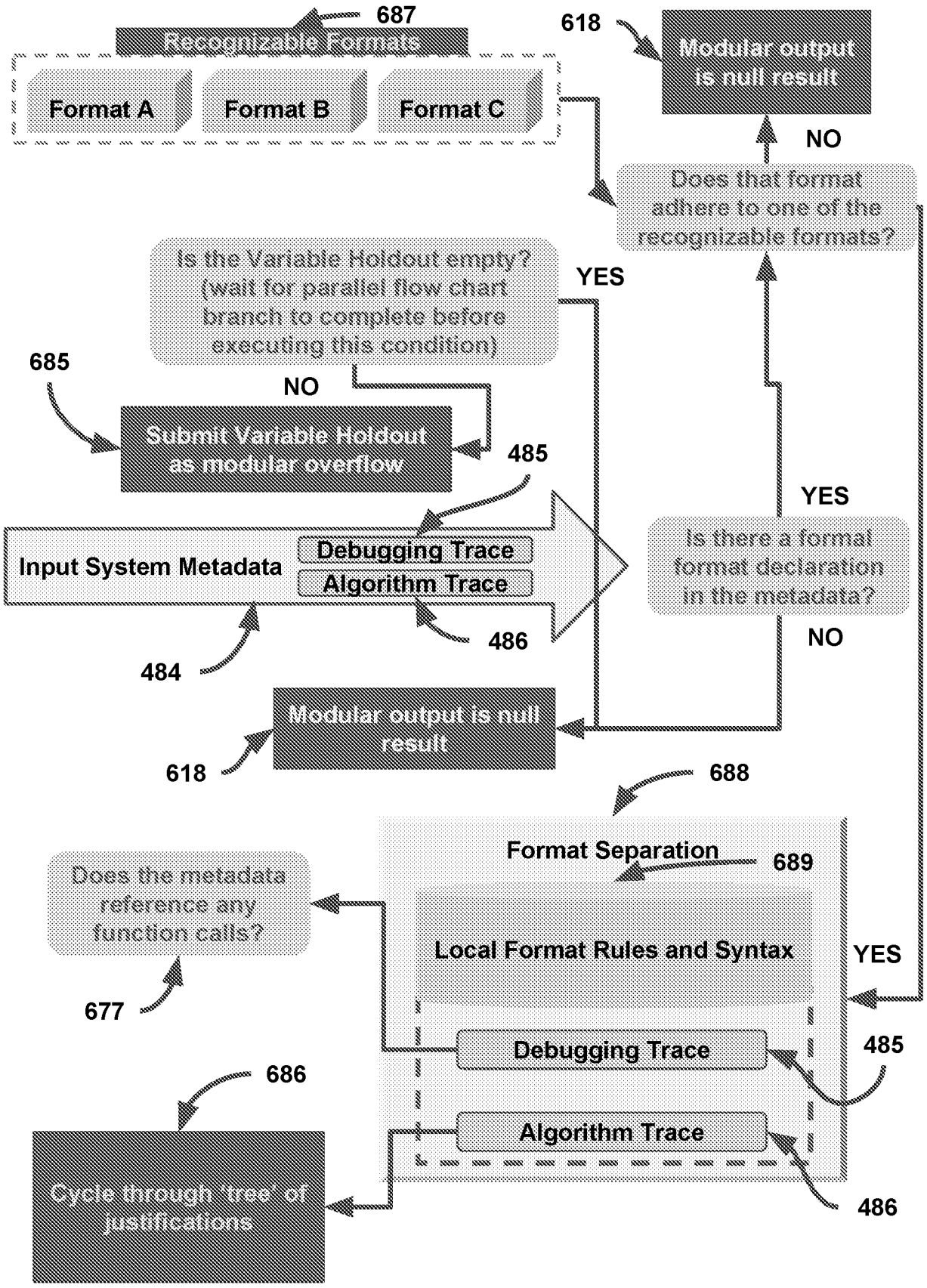

687
Recognizable Formats
Format A
Format B
Format C
618
Modular output is null result
NO
Does that format adhere to one of the recognizable formats?
Is the Variable Holdout empty? (wait for parallel flow chart branch to complete before executing this condition)
YES
685
NO
Submit Variable Holdout as modular overflow
485
Input System Metadata
Debugging Trace
Algorithm Trace
YES
Is there a formal format declaration in the metadata?
NO
486
484
Modular output is null result
618
688
Format Separation
689
Local Format Rules and Syntax
YES
Does the metadata reference any function calls?
677
Debugging Trace
485
686
Algorithm Trace
Cycle through 'tree' of justifications
486

FIG. 107

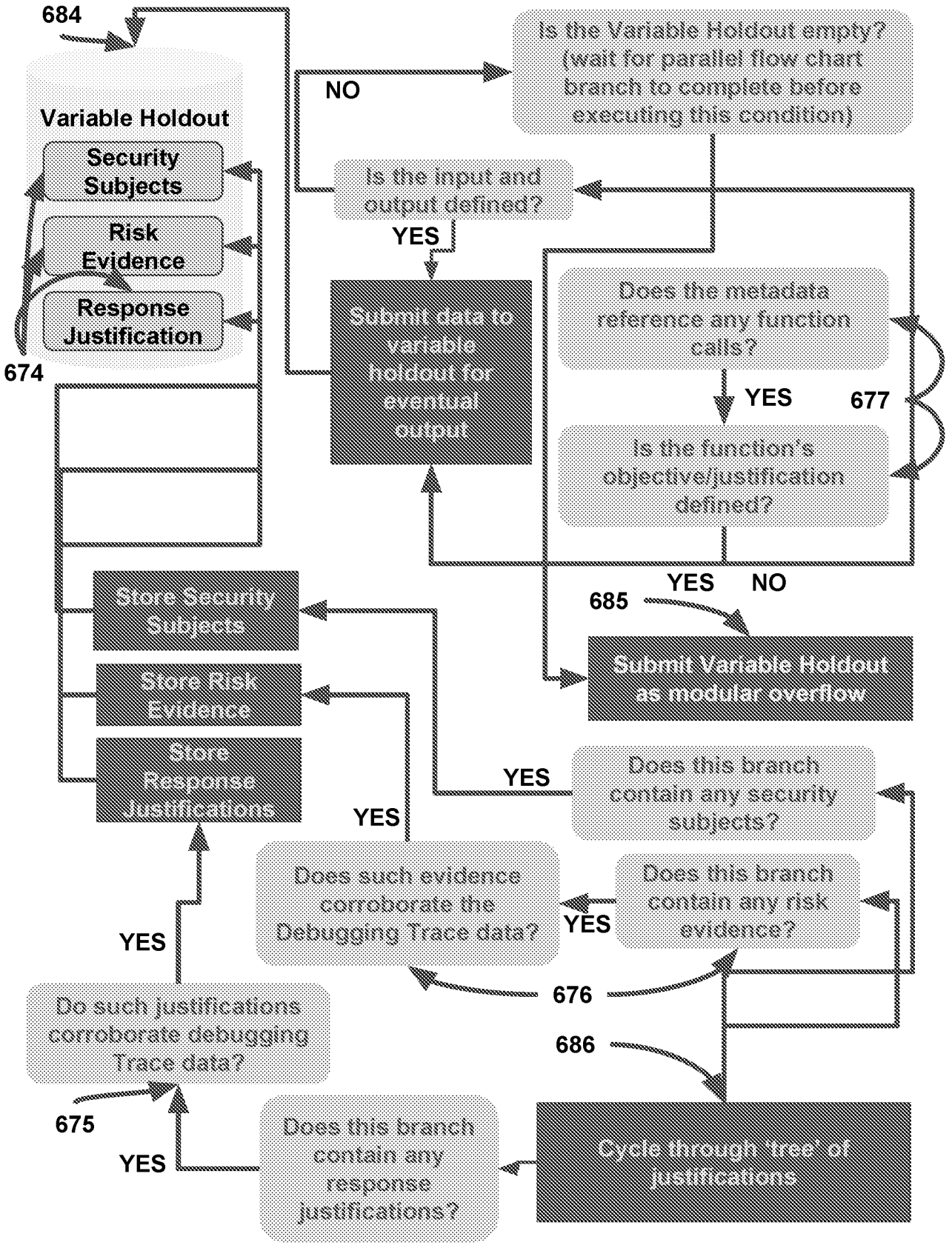

684
Variable Holdout
Security Subjects
Risk Evidence
Response Justification
674
NO
Is the Variable Holdout empty? (wait for parallel flow chart branch to complete before executing this condition)
Is the input and output defined?
YES
Submit data to variable holdout for eventual output
Does the metadata reference any function calls?
YES
677
Is the function's objective/justification defined?
YES
NO
685
Submit Variable Holdout as modular overflow
Store Security Subjects
Store Risk Evidence
Store Response Justifications
YES
Does this branch contain any security subjects?
YES
Does such evidence corroborate the Debugging Trace data?
YES
Does this branch contain any risk evidence?
676
686
YES
Do such justifications corroborate debugging Trace data?
675
YES
Does this branch contain any response justifications?
Cycle through 'tree' of justifications

FIG. 108

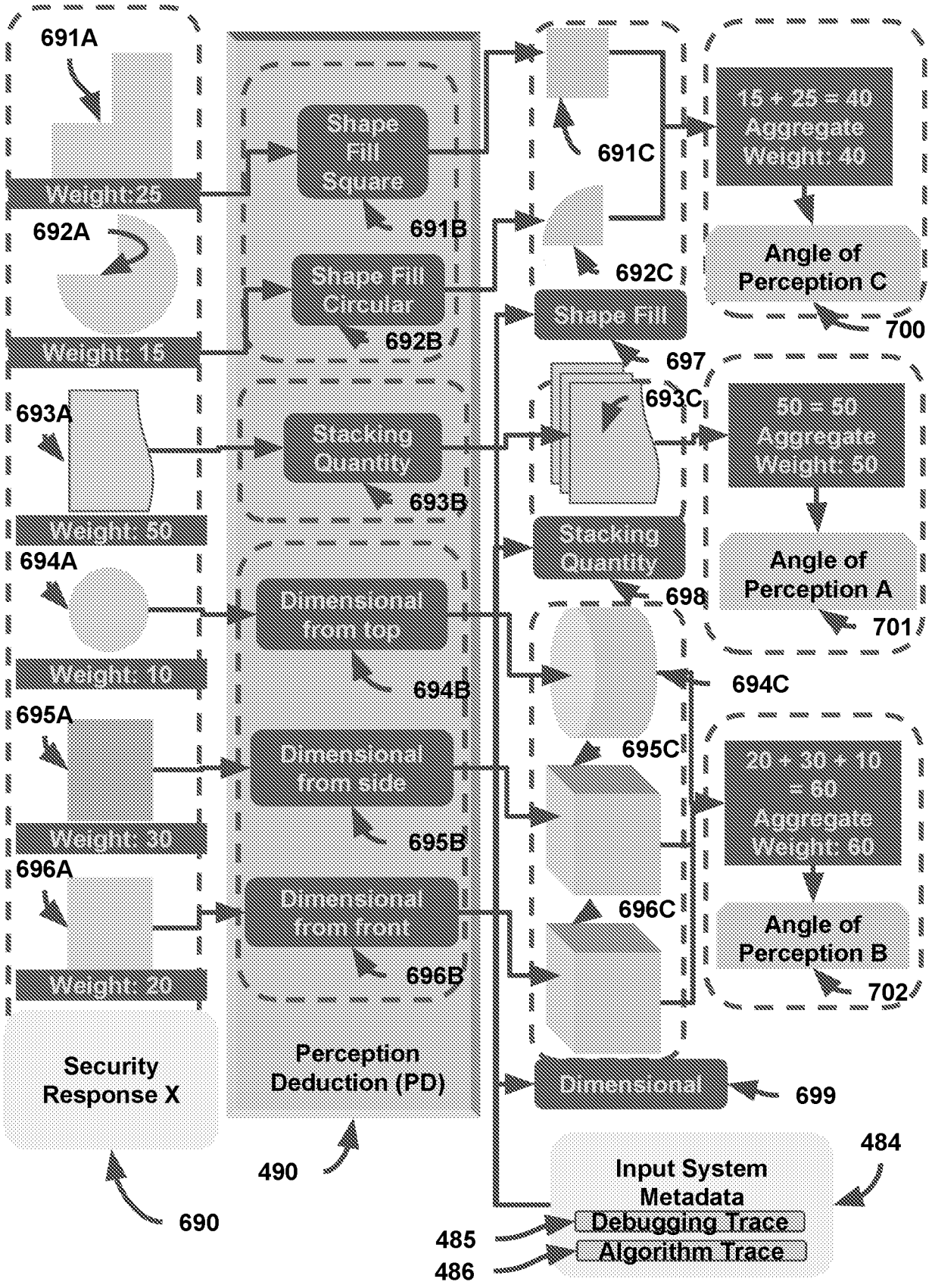

691A
Weight: 25
692A
Weight: 15
693A
Weight: 50
694A
Weight: 10
695A
Weight: 30
696A
Weight: 20
Security Response X
690
Shape Fill Square
691B
Shape Fill Circular
692B
Stacking Quantity
693B
Dimensional from top
694B
Dimensional from side
695B
Dimensional from front
696B
Perception Deduction (PD)
490
691C
692C
Shape Fill
697
693C
Stacking Quantity
698
694C
695C
696C
Dimensional
699
15 + 25 = 40 Aggregate Weight: 40
Angle of Perception C
700
50 = 50 Aggregate Weight: 50
Angle of Perception A
701
20 + 30 + 10 = 60 Aggregate Weight: 60
Angle of Perception B
702
484
Input System Metadata
Debugging Trace
Algorithm Trace
485
486

FIG. 109

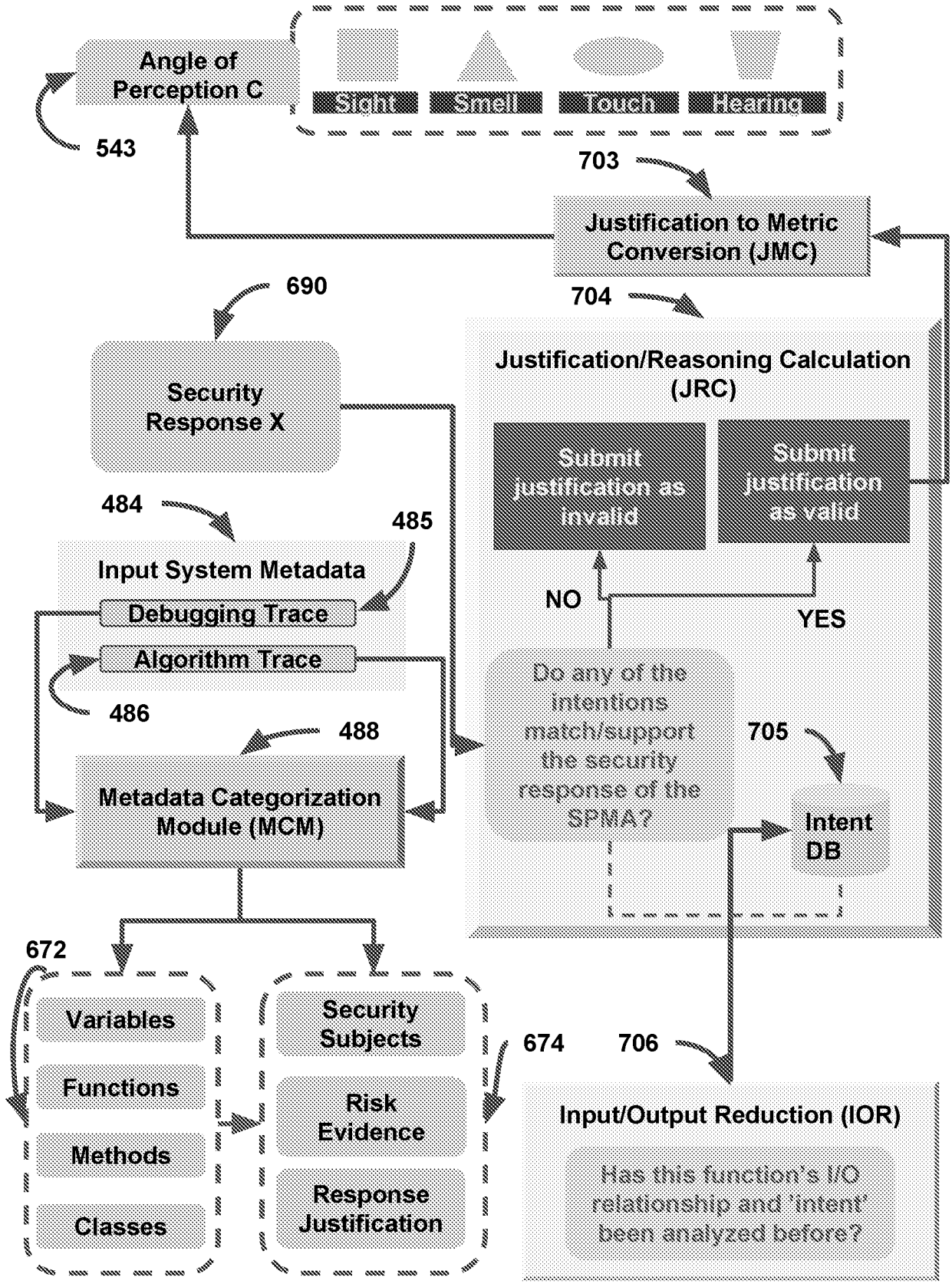

Angle of Perception C
543
Sight
Smell
Touch
Hearing
703
Justification to Metric Conversion (JMC)
690
704
Security Response X
Justification/Reasoning Calculation (JRC)
Submit justification as invalid
Submit justification as valid
484
485
Input System Metadata
Debugging Trace
Algorithm Trace
NO
YES
Do any of the intentions match/support the security response of the SPMA?
486
488
705
Metadata Categorization Module (MCM)
Intent DB
672
Variables
Functions
Methods
Classes
Security Subjects
Risk Evidence
Response Justification
674
706
Input/Output Reduction (IOR)
Has this function's I/O relationship and 'intent' been analyzed before?

FIG. 110

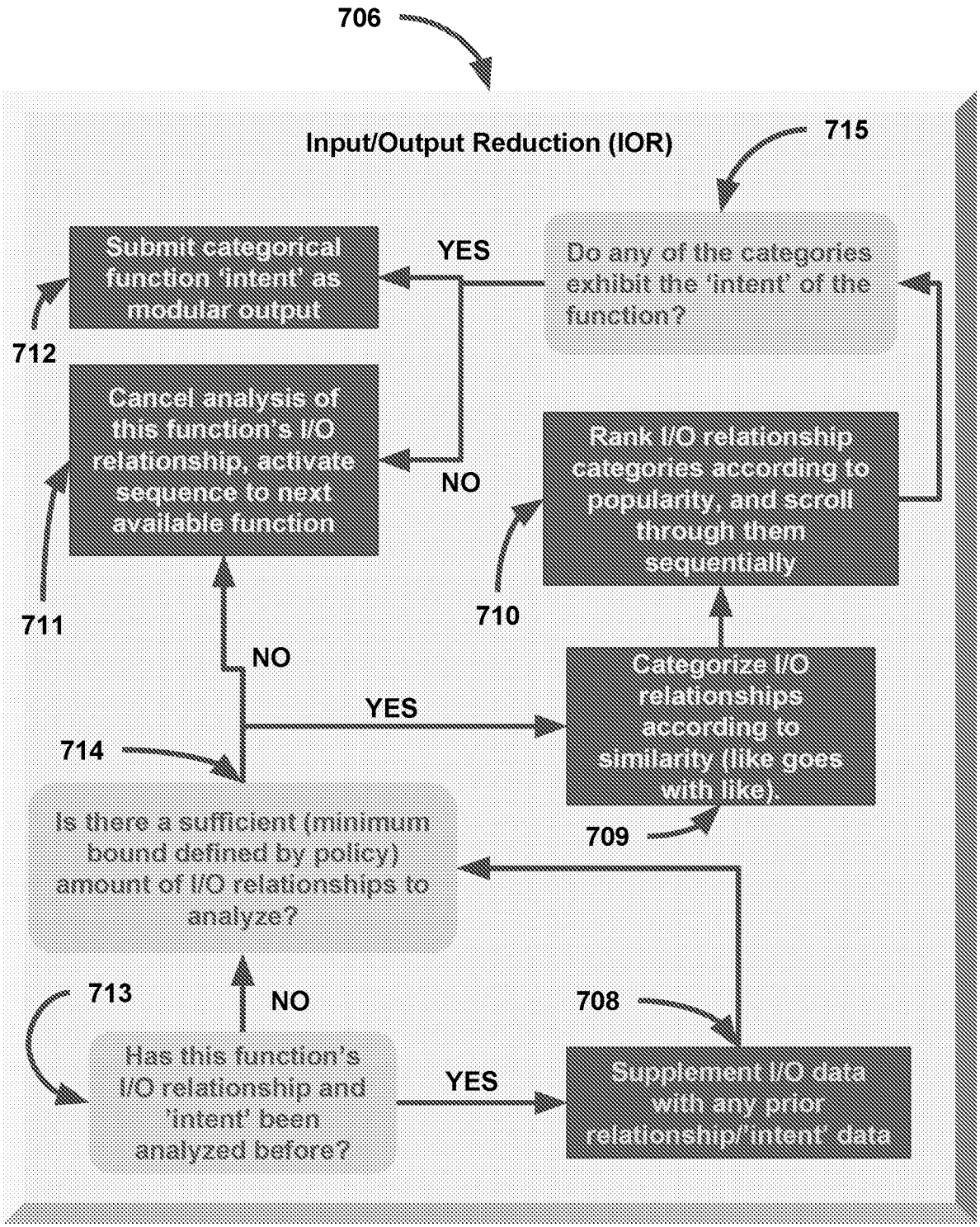

706
Input/Output Reduction (IOR)
715
Do any of the categories exhibit the 'intent' of the function?
YES
Submit categorical function 'intent' as modular output
712
NO
Cancel analysis of this function's I/O relationship, activate sequence to next available function
711
Rank I/O relationship categories according to popularity, and scroll through them sequentially
710
NO
YES
Categorize I/O relationships according to similarity (like goes with like)
714
709
Is there a sufficient (minimum bound defined by policy) amount of I/O relationships to analyze?
713
NO
708
Has this function's I/O relationship and 'intent' been analyzed before?
YES
Supplement I/O data with any prior relationship/'intent' data

FIG. 111

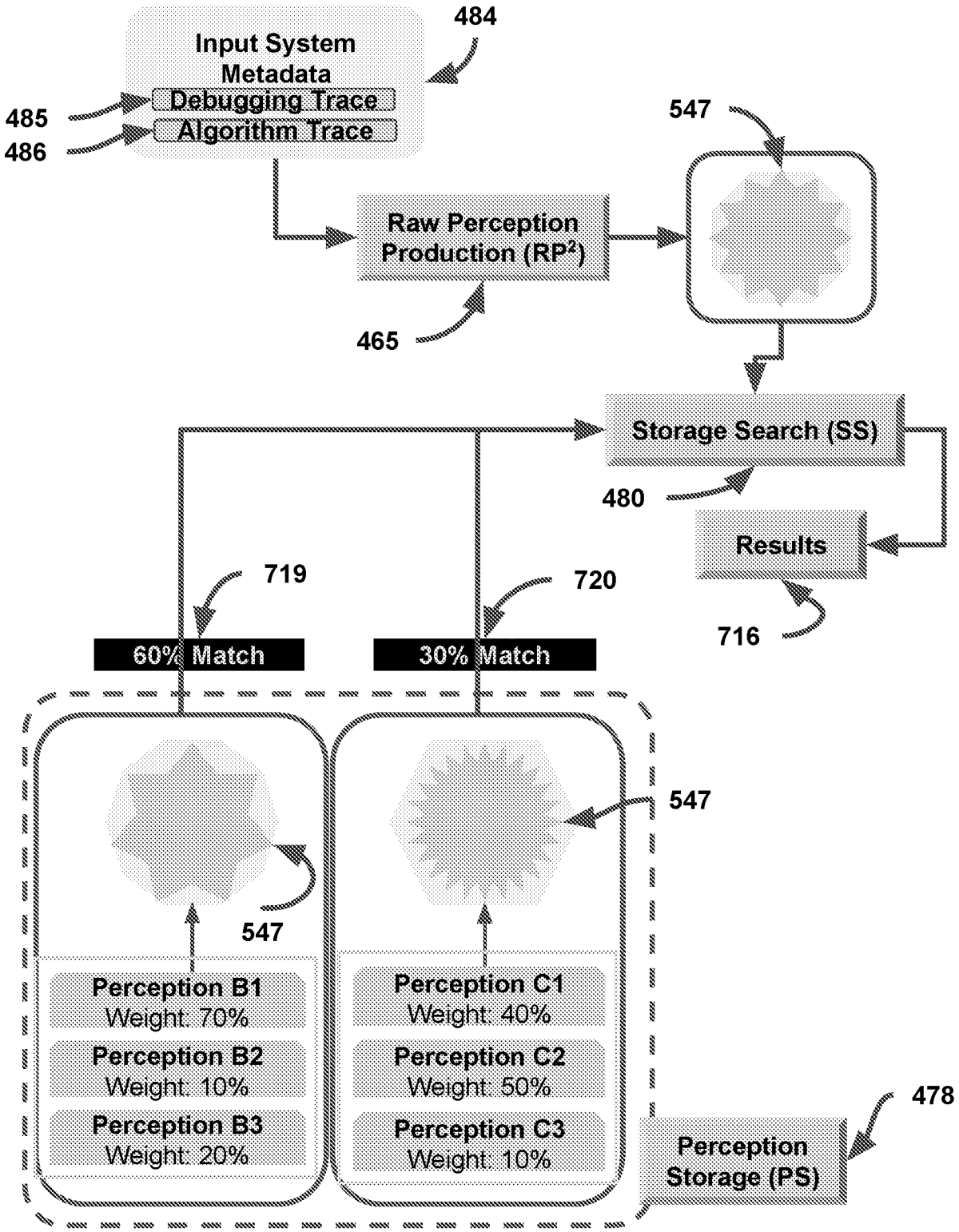

Input System Metadata
Debugging Trace
Algorithm Trace
484
485
486
547
Raw Perception Production (RP²)
465
Storage Search (SS)
480
Results
716
719
720
60% Match
30% Match
547
547
Perception B1
Weight: 70%
Perception B2
Weight: 10%
Perception B3
Weight: 20%
Perception C1
Weight: 40%
Perception C2
Weight: 50%
Perception C3
Weight: 10%
478
Perception Storage (PS)

FIG. 112

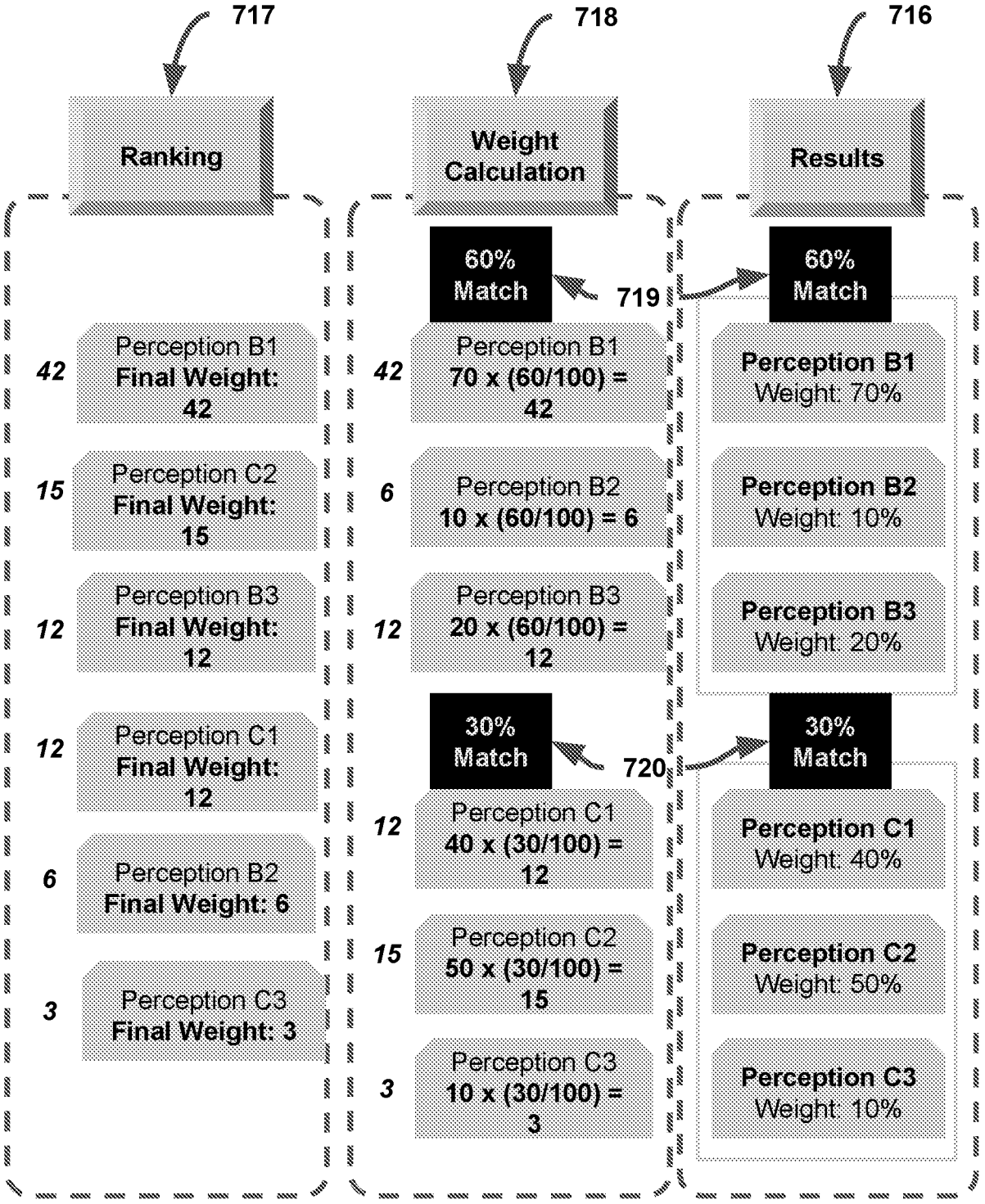

717
718
716
Ranking
Weight Calculation
Results
60% Match
719
60% Match
42
Perception B1 Final Weight: 42
42
Perception B1 70 x (60/100) = 42
Perception B1 Weight: 70%
15
Perception C2 Final Weight: 15
6
Perception B2 10 x (60/100) = 6
Perception B2 Weight: 10%
12
Perception B3 Final Weight: 12
12
Perception B3 20 x (60/100) = 12
Perception B3 Weight: 20%
30% Match
720
30% Match
12
Perception C1 Final Weight: 12
12
Perception C1 40 x (30/100) = 12
Perception C1 Weight: 40%
6
Perception B2 Final Weight: 6
15
Perception C2 50 x (30/100) = 15
Perception C2 Weight: 50%
3
Perception C3 Final Weight: 3
3
Perception C3 10 x (30/100) = 3
Perception C3 Weight: 10%

FIG. 113

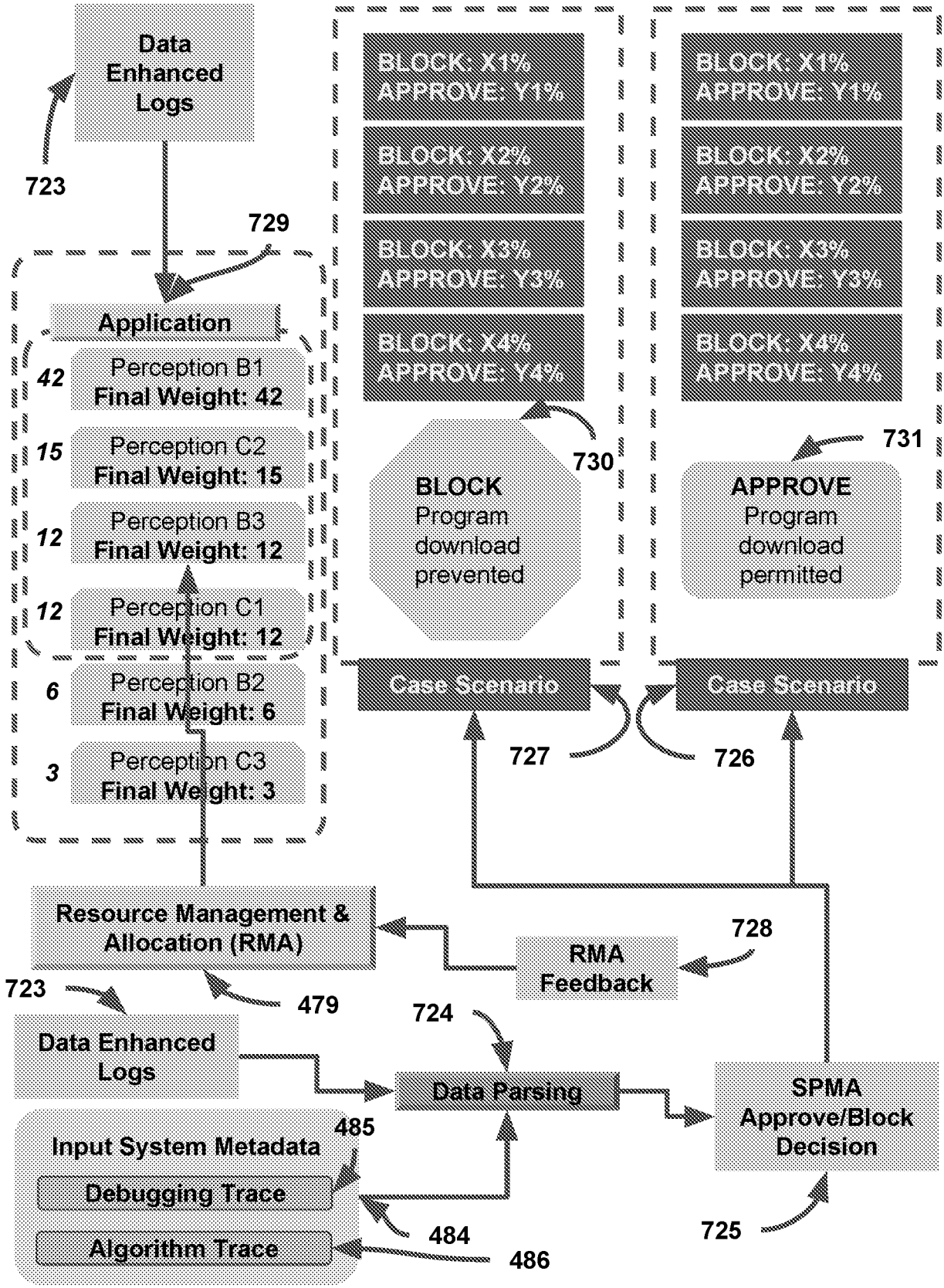

Data Enhanced Logs
723
729
Application
42
Perception B1
Final Weight: 42
15
Perception C2
Final Weight: 15
12
Perception B3
Final Weight: 12
12
Perception C1
Final Weight: 12
6
Perception B2
Final Weight: 6
3
Perception C3
Final Weight: 3
BLOCK: X1%
APPROVE: Y1%
BLOCK: X2%
APPROVE: Y2%
BLOCK: X3%
APPROVE: Y3%
BLOCK: X4%
APPROVE: Y4%
730
BLOCK
Program
download
prevented
731
APPROVE
Program
download
permitted
Case Scenario
Case Scenario
727
726
Resource Management & Allocation (RMA)
728
RMA Feedback
723
479
724
Data Enhanced Logs
Data Parsing
SPMA Approve/Block Decision
485
Input System Metadata
Debugging Trace
Algorithm Trace
484
486
725

FIG. 114

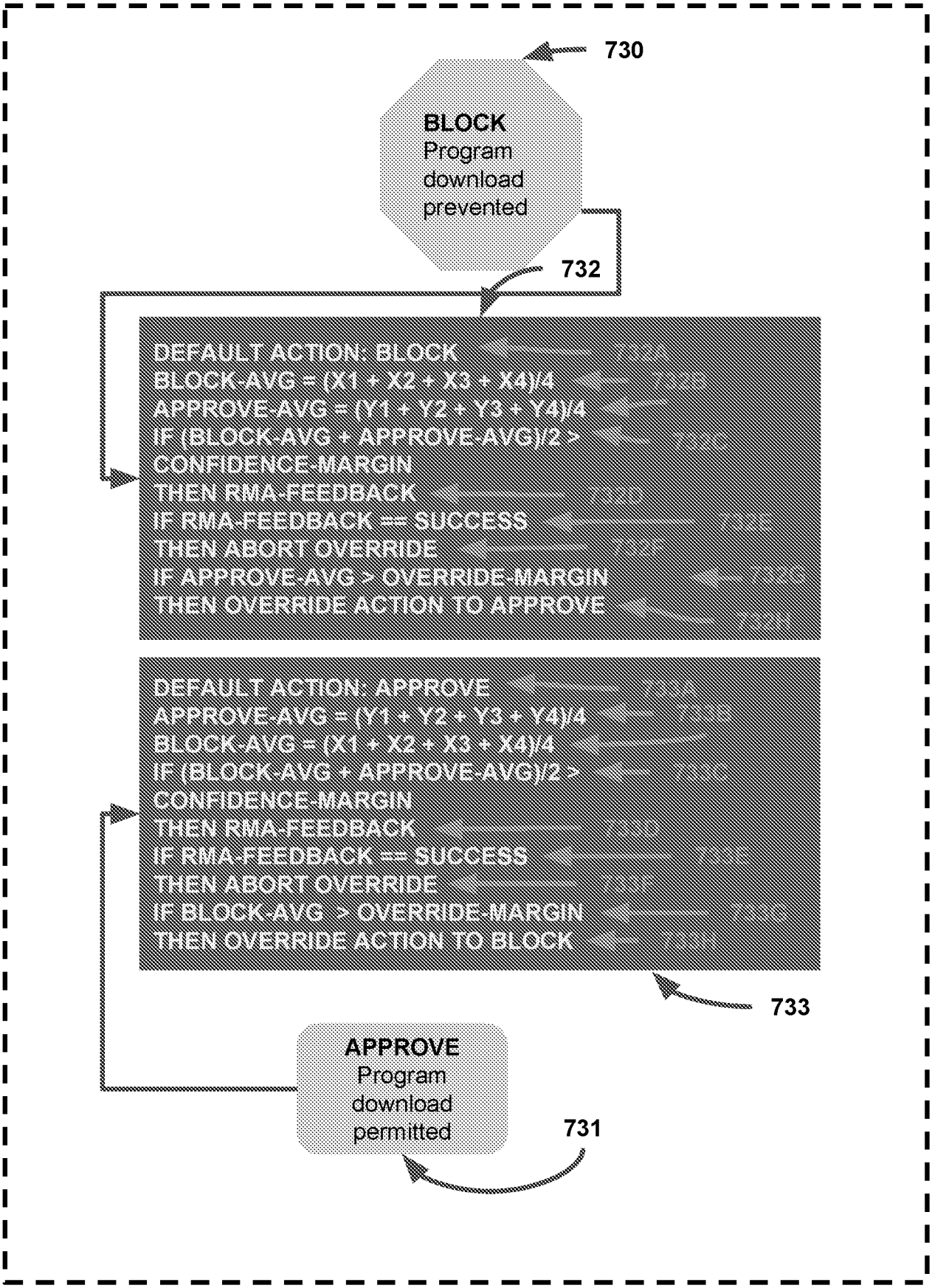

730
BLOCK
Program
download
prevented
732
DEFAULT ACTION: BLOCK
BLOCK-AVG = (X1 + X2 + X3 + X4)/4
APPROVE-AVG = (Y1 + Y2 + Y3 + Y4)/4
IF (BLOCK-AVG + APPROVE-AVG)/2 >
CONFIDENCE-MARGIN
THEN RMA-FEEDBACK
IF RMA-FEEDBACK == SUCCESS
THEN ABORT OVERRIDE
IF APPROVE-AVG > OVERRIDE-MARGIN
THEN OVERRIDE ACTION TO APPROVE
DEFAULT ACTION: APPROVE
APPROVE-AVG = (Y1 + Y2 + Y3 + Y4)/4
BLOCK-AVG = (X1 + X2 + X3 + X4)/4
IF (BLOCK-AVG + APPROVE-AVG)/2 >
CONFIDENCE-MARGIN
THEN RMA-FEEDBACK
IF RMA-FEEDBACK == SUCCESS
THEN ABORT OVERRIDE
IF BLOCK-AVG > OVERRIDE-MARGIN
THEN OVERRIDE ACTION TO BLOCK
733
APPROVE
Program
download
permitted
731

FIG. 115

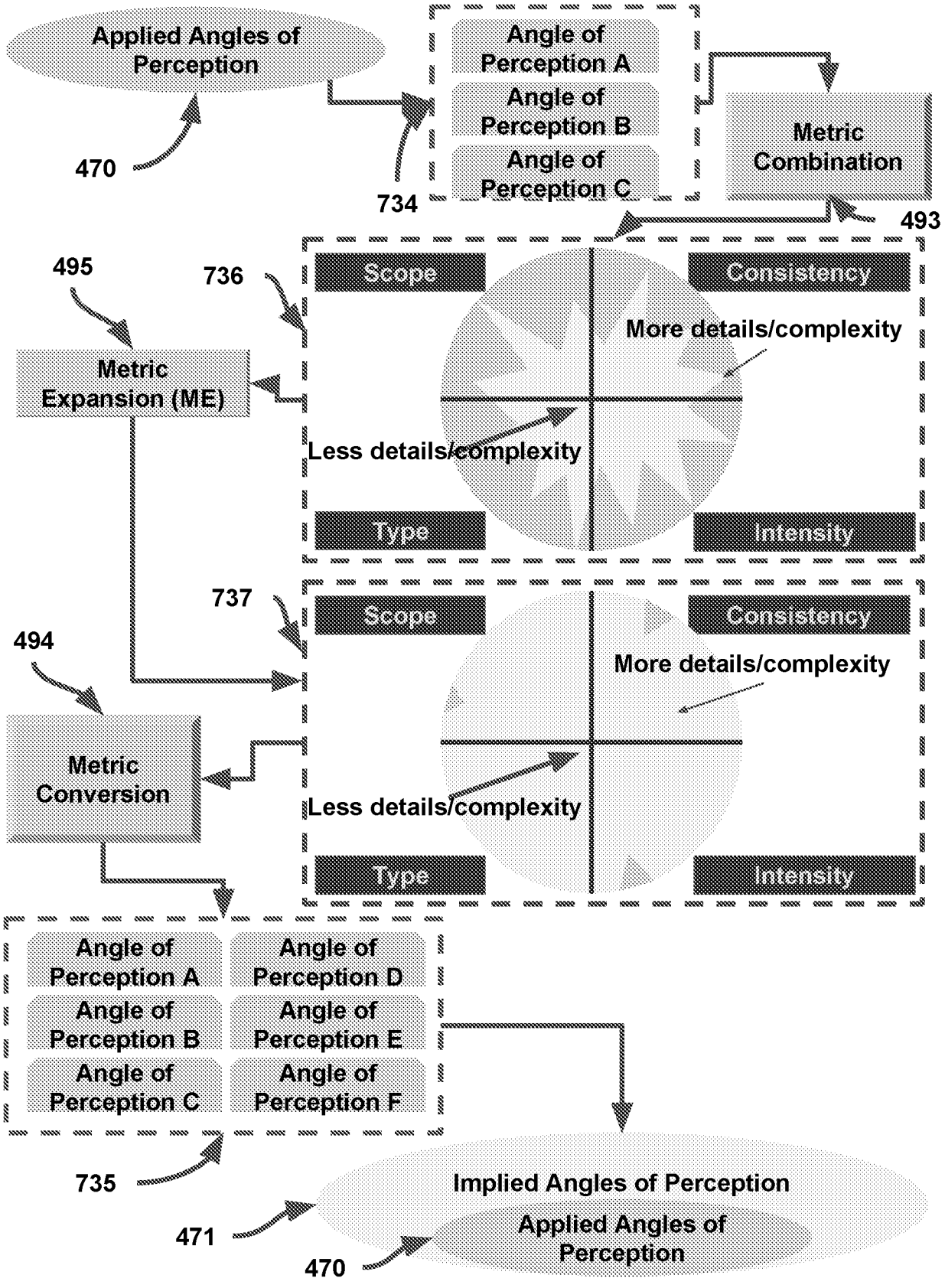

Applied Angles of Perception
470
Angle of Perception A
Angle of Perception B
Angle of Perception C
734
Metric Combination
493
495
736
Scope
Consistency
More details/complexity
Metric Expansion (ME)
Less details/complexity
Type
Intensity
737
Scope
Consistency
494
More details/complexity
Metric Conversion
Less details/complexity
Type
Intensity
Angle of Perception A
Angle of Perception D
Angle of Perception B
Angle of Perception E
Angle of Perception C
Angle of Perception F
735
Implied Angles of Perception
471
Applied Angles of Perception
470

FIG. 116

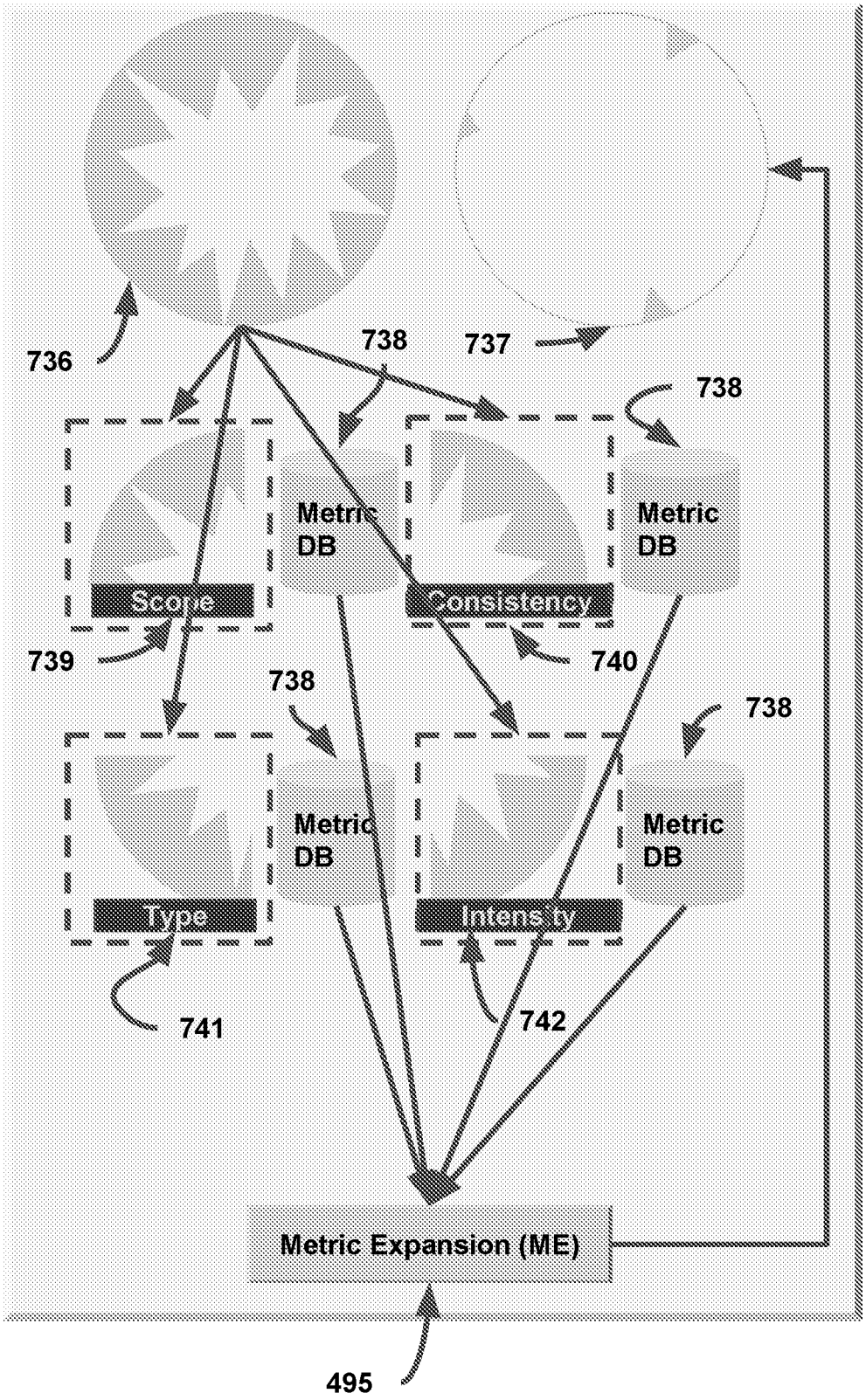

736
738
737
738
Metric DB
Metric DB
Score
Consistency
739
740
738
738
Metric DB
Metric DB
Type
Intensity
741
742
Metric Expansion (ME)
495

FIG. 117

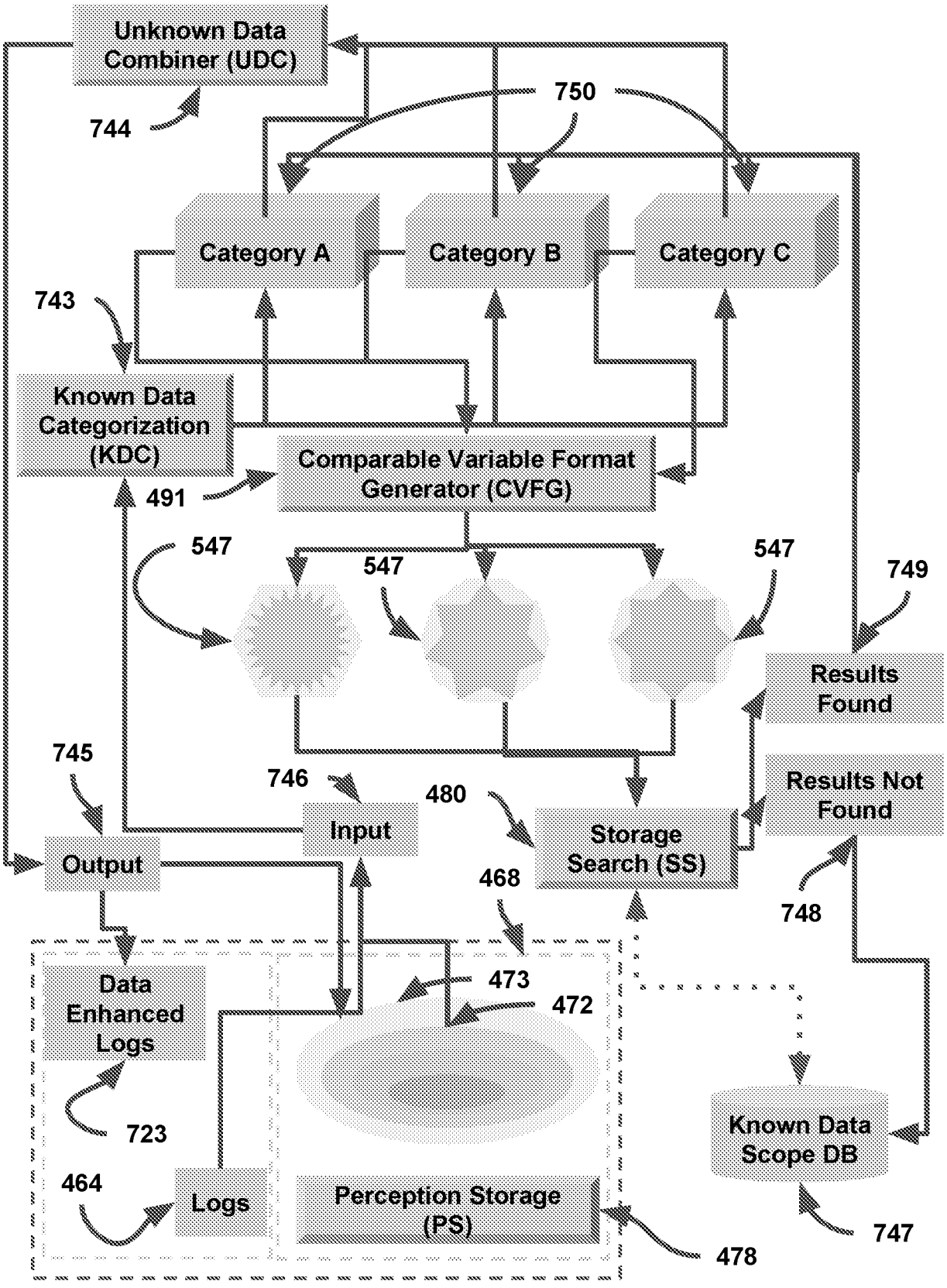

Unknown Data Combiner (UDC)
744
750
Category A
Category B
Category C
743
Known Data Categorization (KDC)
Comparable Variable Format Generator (CVFG)
491
547
547
547
749
Results Found
745
746
480
Input
Storage Search (SS)
Results Not Found
Output
468
748
Data Enhanced Logs
473
472
723
Known Data Scope DB
464
Logs
Perception Storage (PS)
747
478

FIG. 118

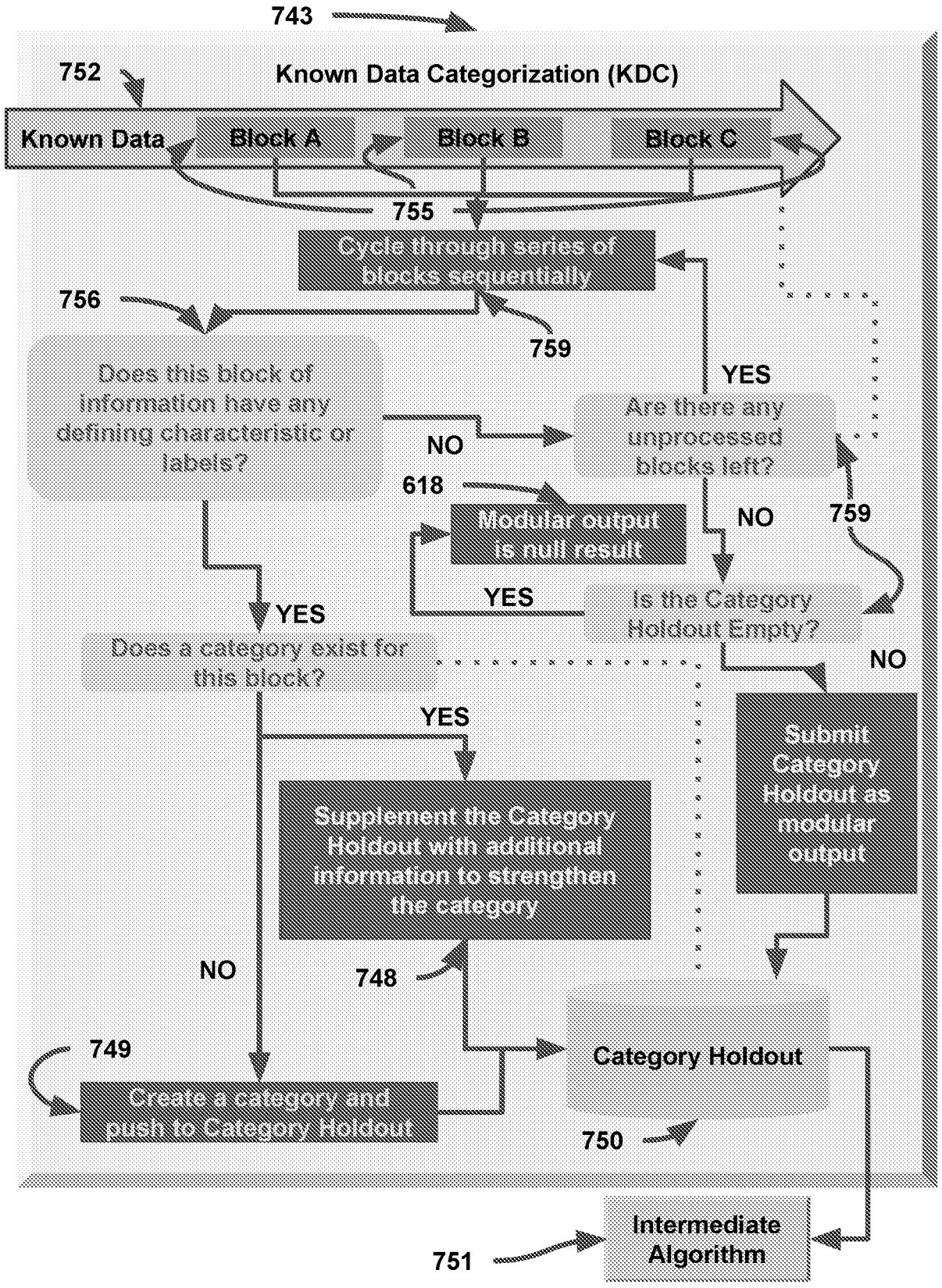

743
752
Known Data Categorization (KDC)
Known Data
Block A
Block B
Block C
755
Cycle through series of blocks sequentially
756
759
Does this block of information have any defining characteristic or labels?
NO
YES
Are there any unprocessed blocks left?
618
Modular output is null result
NO
759
YES
Is the Category Holdout Empty?
YES
Does a category exist for this block?
NO
YES
Supplement the Category Holdout with additional information to strengthen the category
Submit Category Holdout as modular output
NO
748
749
Create a category and push to Category Holdout
Category Holdout
750
751
Intermediate Algorithm

FIG. 119

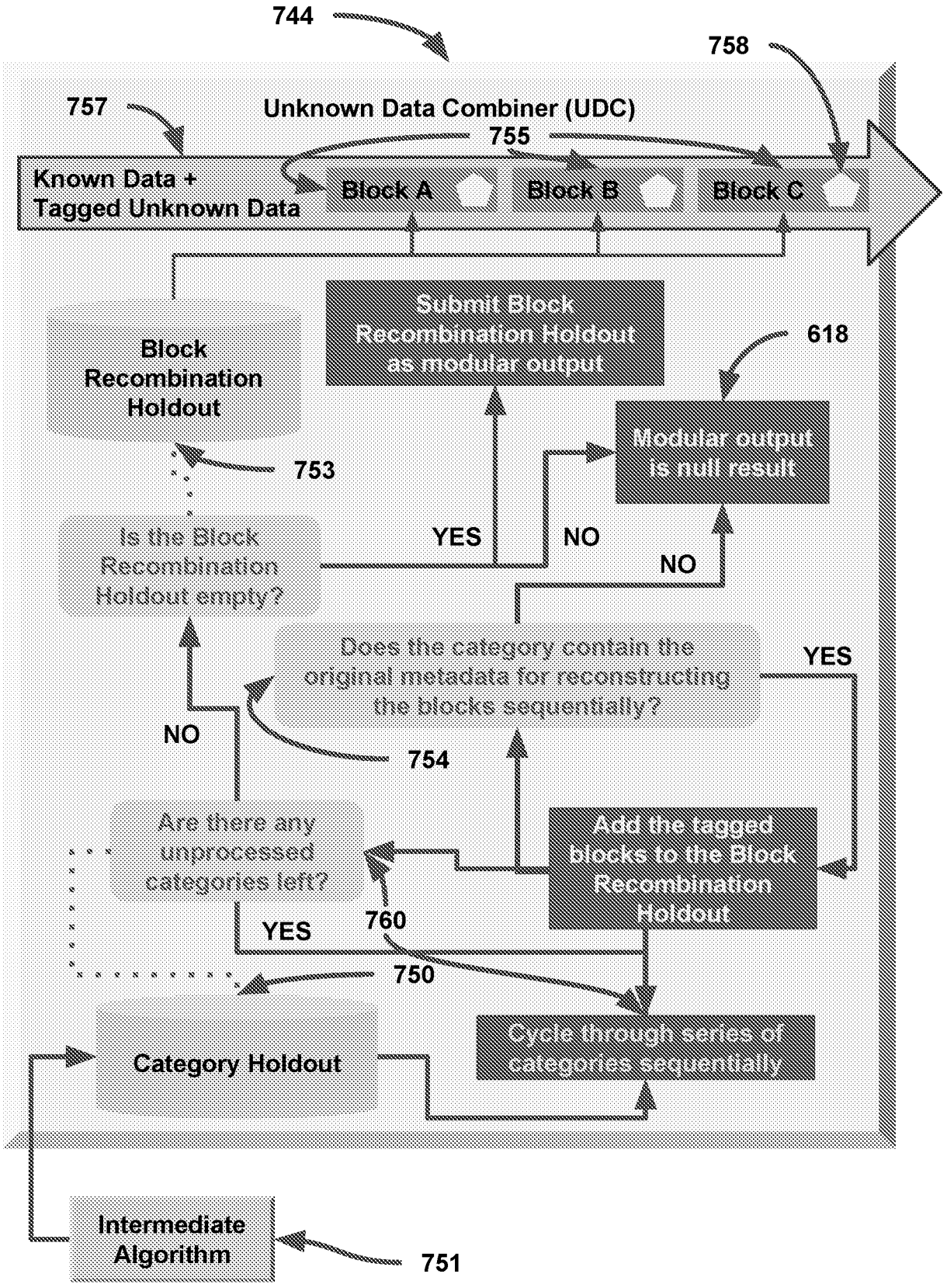

744
758
757
Unknown Data Combiner (UDC)
755
Known Data +
Tagged Unknown Data
Block A
Block B
Block C
Submit Block Recombination Holdout as modular output
618
Block Recombination Holdout
753
Modular output is null result
Is the Block Recombination Holdout empty?
YES
NO
NO
Does the category contain the original metadata for reconstructing the blocks sequentially?
YES
NO
754
Are there any unprocessed categories left?
Add the tagged blocks to the Block Recombination Holdout
YES
760
750
Cycle through series of categories sequentially
Category Holdout
Intermediate Algorithm
751

FIG. 120

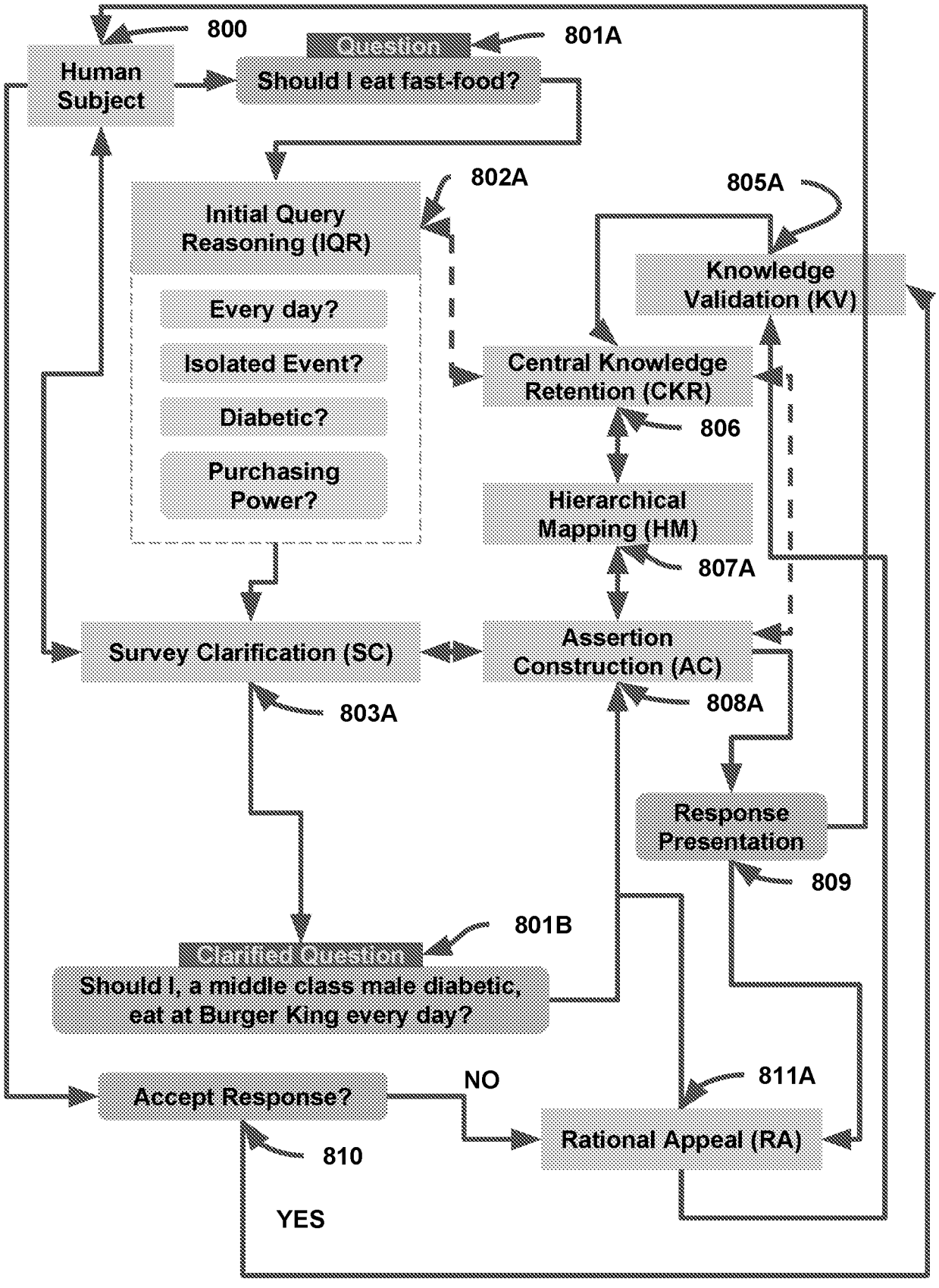

800
Human Subject
Question
801A
Should I eat fast-food?
802A
Initial Query Reasoning (IQR)
Every day?
Isolated Event?
Diabetic?
Purchasing Power?
805A
Knowledge Validation (KV)
Central Knowledge Retention (CKR)
806
Hierarchical Mapping (HM)
807A
Survey Clarification (SC)
Assertion Construction (AC)
803A
808A
Response Presentation
809
Clarified Question
801B
Should I, a middle class male diabetic, eat at Burger King every day?
Accept Response?
NO
811A
Rational Appeal (RA)
810
YES

FIG. 121

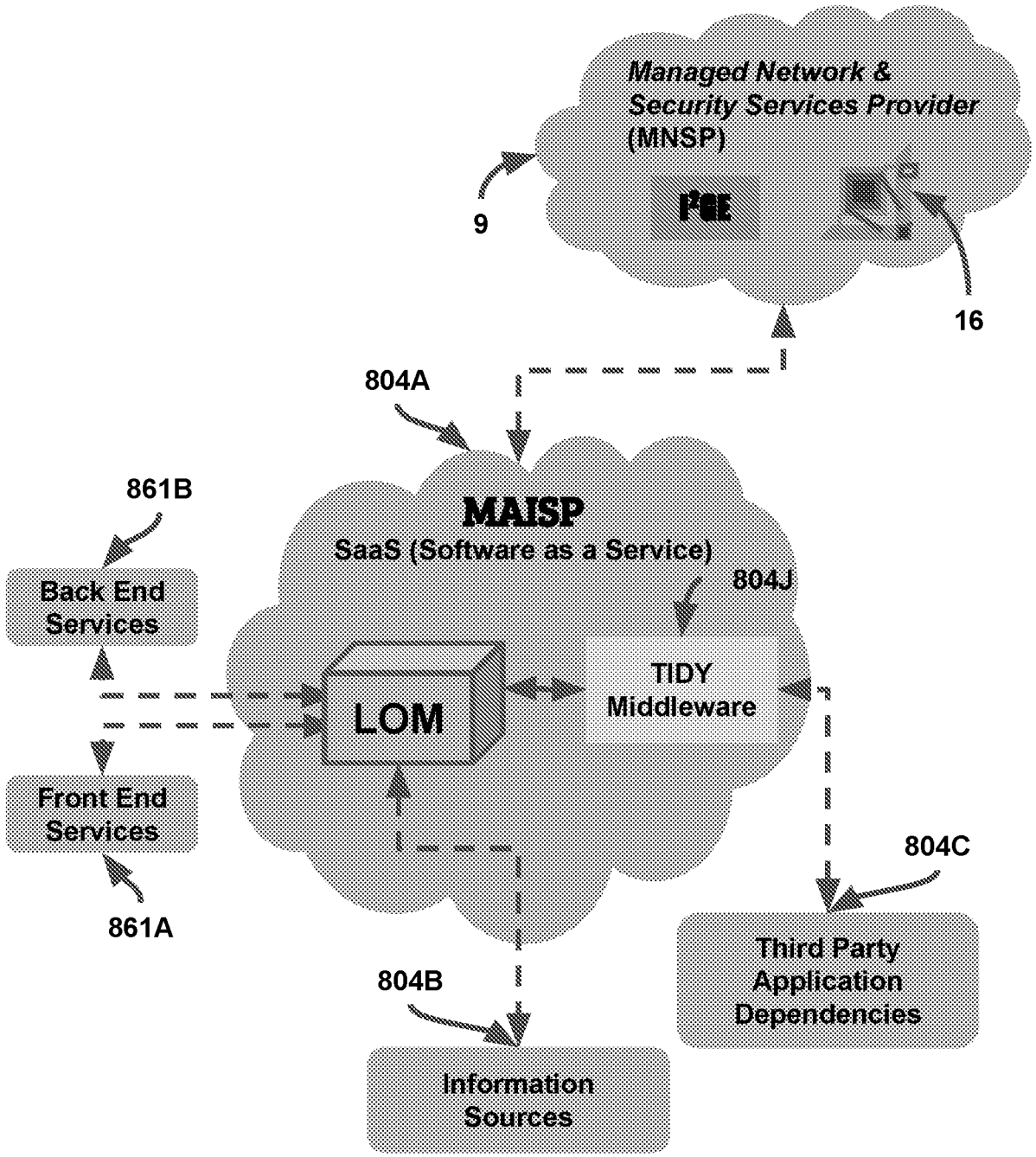

Managed Network &
Security Services Provider
(MNSP)
PCE
9
16
804A
861B
MAISP
SaaS (Software as a Service)
804J
Back End
Services
LOM
TIDY
Middleware
Front End
Services
804C
861A
Third Party
Application
Dependencies
804B
Information
Sources

FIG. 122

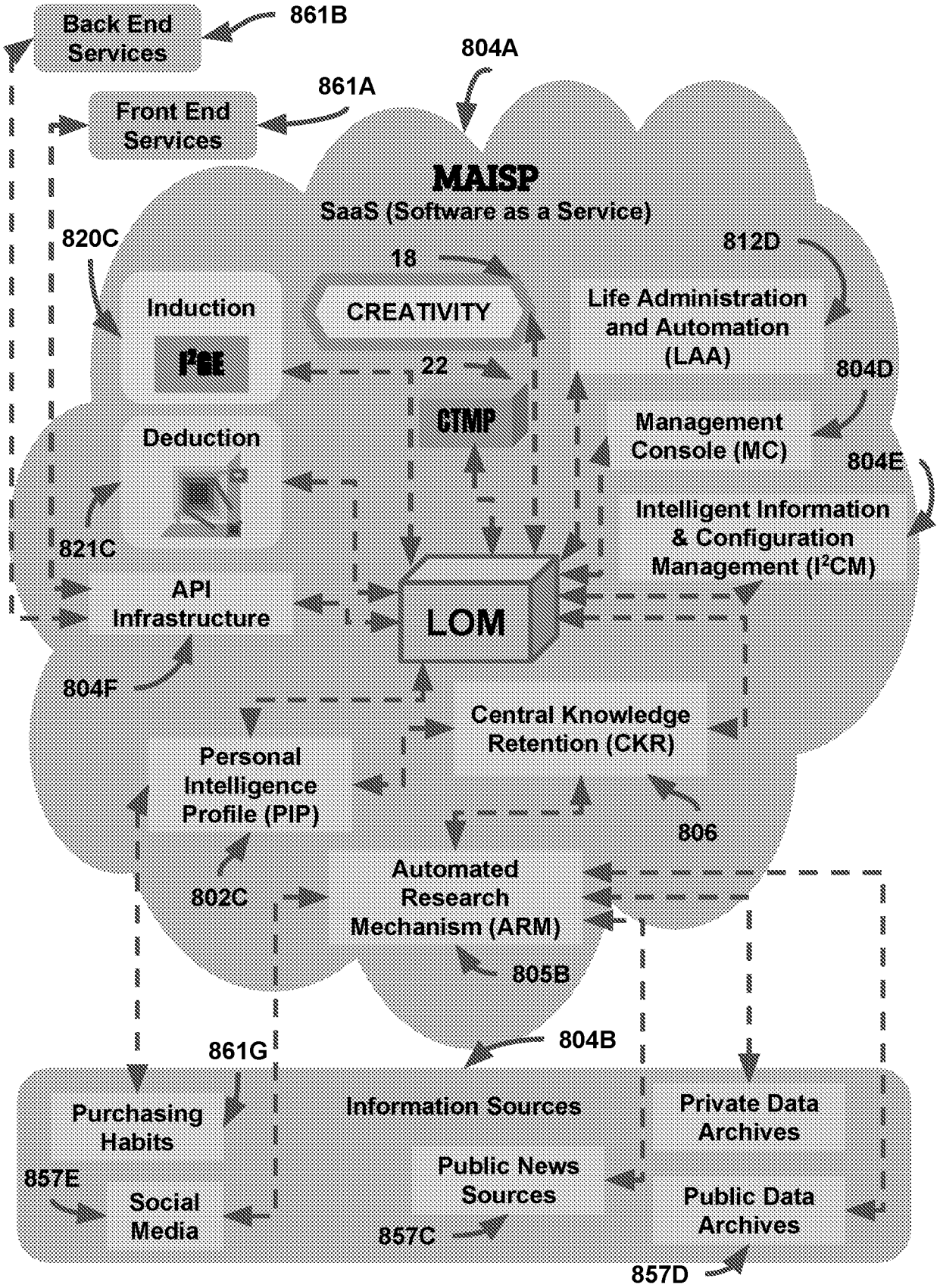

Back End Services
861B
804A
861A
Front End Services
MAISP
SaaS (Software as a Service)
820C
18
812D
Induction
CREATIVITY
Life Administration and Automation (LAA)
PGE
22
804D
CTMP
Deduction
Management Console (MC)
804E
Intelligent Information & Configuration Management (I²CM)
821C
API Infrastructure
LOM
804F
Central Knowledge Retention (CKR)
Personal Intelligence Profile (PIP)
806
802C
Automated Research Mechanism (ARM)
805B
804B
861G
Information Sources
Purchasing Habits
Private Data Archives
857E
Public News Sources
Social Media
Public Data Archives
857C
857D

FIG. 123

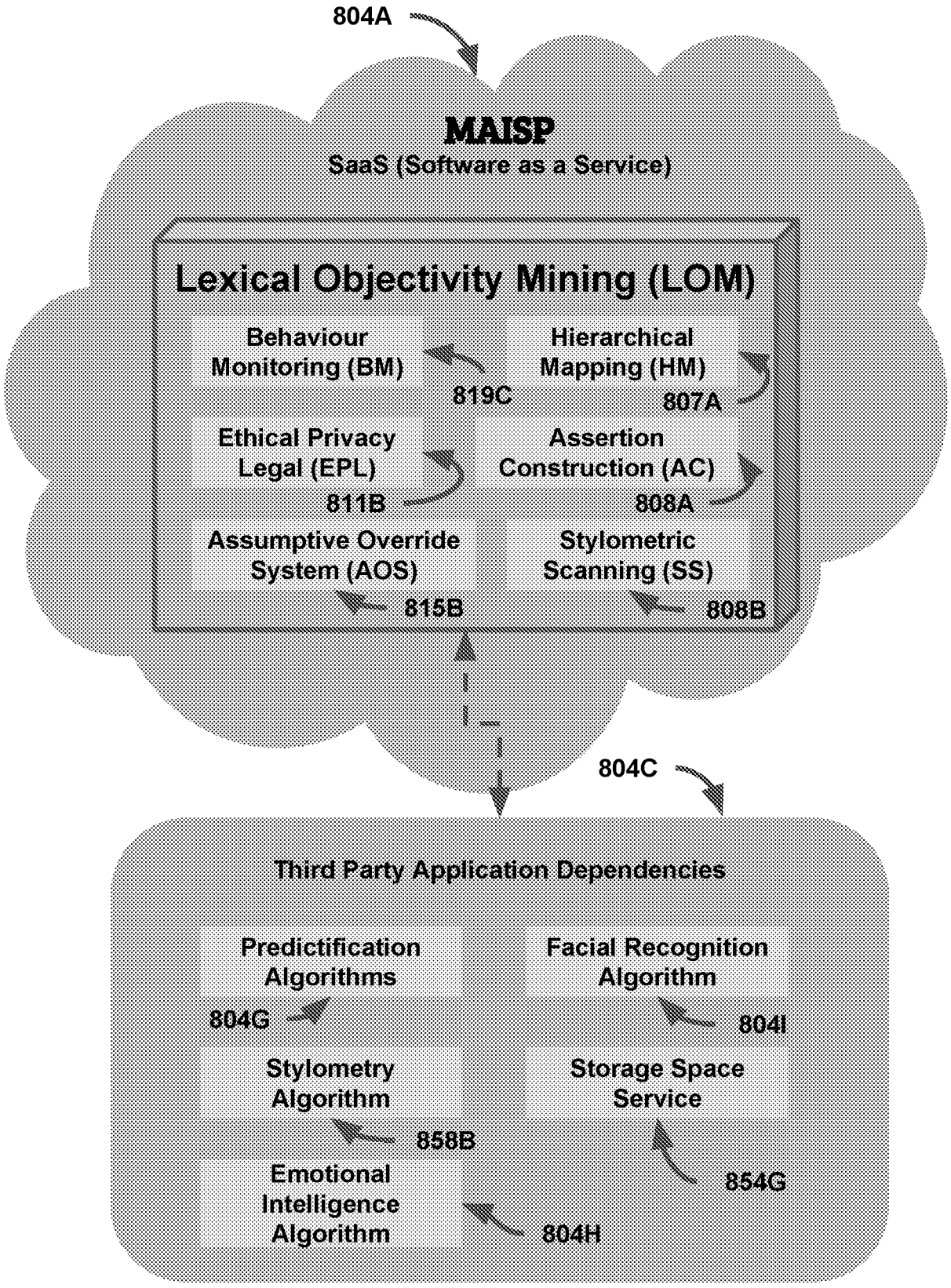

804A
MAISP
SaaS (Software as a Service)
Lexical Objectivity Mining (LOM)
Behaviour Monitoring (BM)
819C
Hierarchical Mapping (HM)
807A
Ethical Privacy Legal (EPL)
811B
Assertion Construction (AC)
808A
Assumptive Override System (AOS)
815B
Stylometric Scanning (SS)
808B
804C
Third Party Application Dependencies
Predictification Algorithms
804G
Facial Recognition Algorithm
804I
Stylometry Algorithm
858B
Storage Space Service
854G
Emotional Intelligence Algorithm
804H

FIG. 124

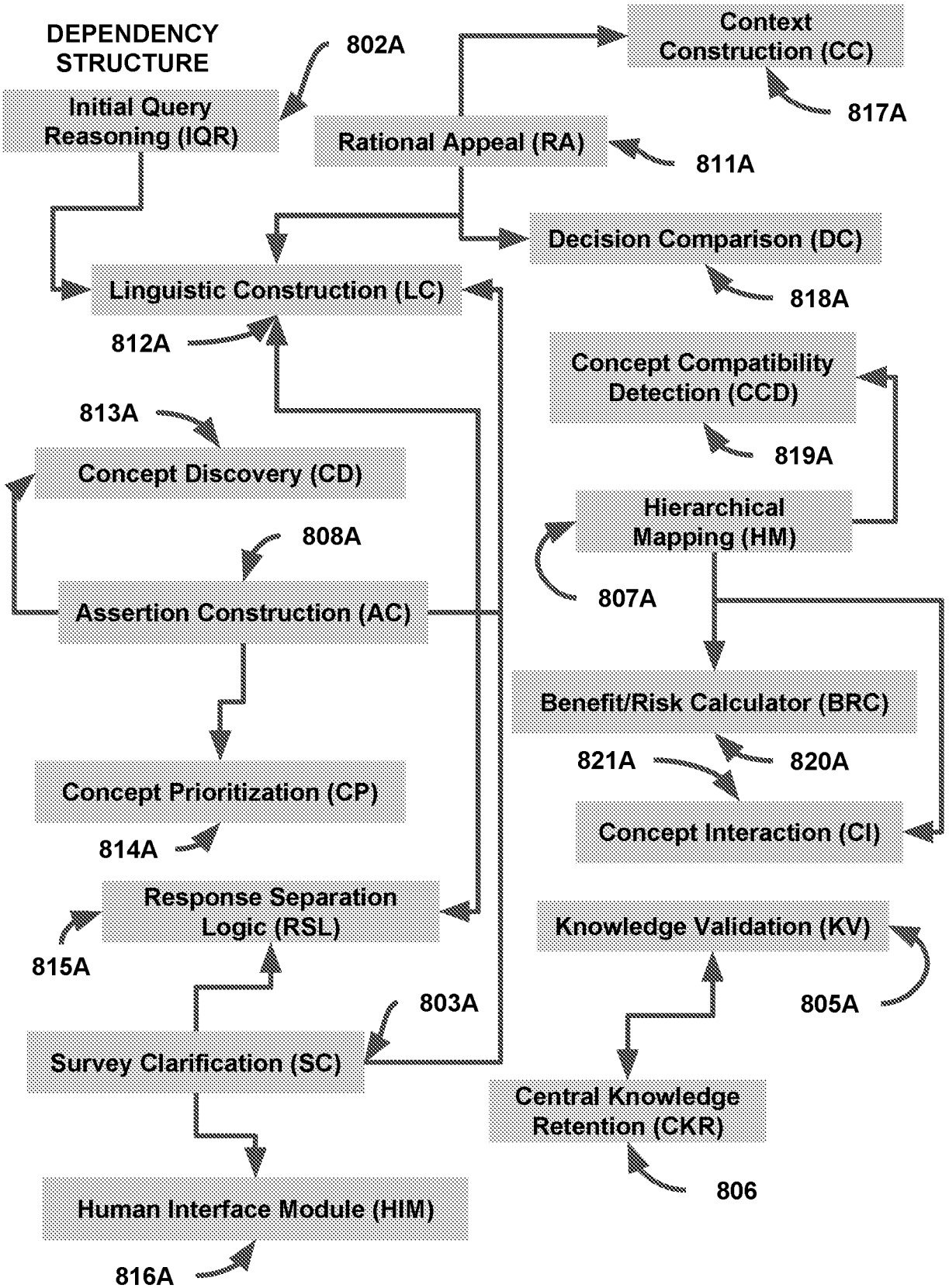

DEPENDENCY STRUCTURE
802A
Initial Query Reasoning (IQR)
Context Construction (CC)
817A
Rational Appeal (RA)
811A
Decision Comparison (DC)
818A
Linguistic Construction (LC)
812A
Concept Compatibility Detection (CCD)
819A
813A
Concept Discovery (CD)
Hierarchical Mapping (HM)
808A
807A
Assertion Construction (AC)
Benefit/Risk Calculator (BRC)
821A
820A
Concept Prioritization (CP)
Concept Interaction (CI)
814A
Response Separation Logic (RSL)
Knowledge Validation (KV)
815A
803A
805A
Survey Clarification (SC)
Central Knowledge Retention (CKR)
806
Human Interface Module (HIM)
816A

FIG. 125

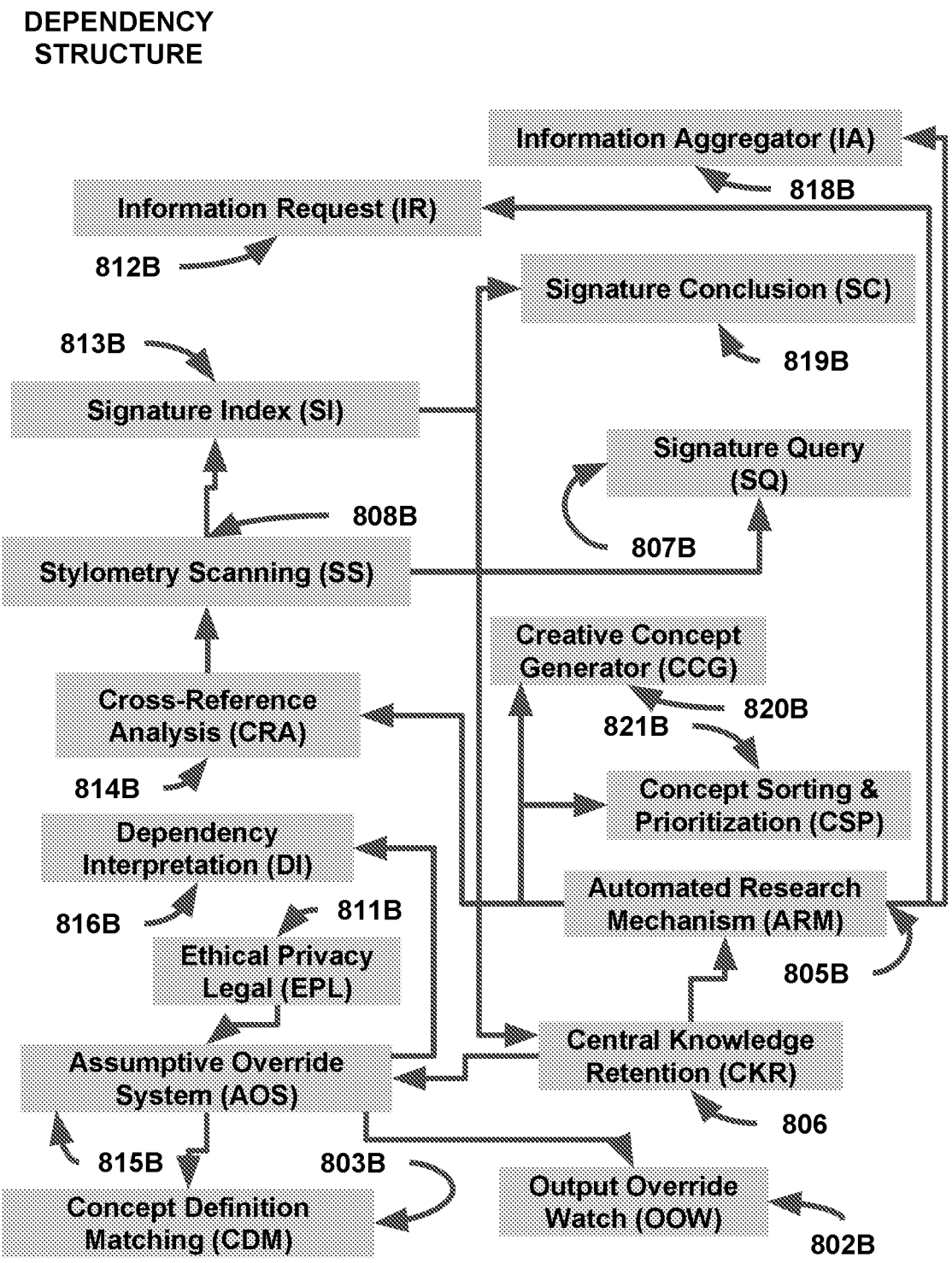

DEPENDENCY STRUCTURE
Information Aggregator (IA)
818B
Information Request (IR)
812B
Signature Conclusion (SC)
819B
813B
Signature Index (SI)
Signature Query (SQ)
808B
807B
Stylometry Scanning (SS)
Creative Concept Generator (CCG)
820B
821B
Cross-Reference Analysis (CRA)
814B
Concept Sorting & Prioritization (CSP)
Dependency Interpretation (DI)
816B
811B
Automated Research Mechanism (ARM)
Ethical Privacy Legal (EPL)
805B
Central Knowledge Retention (CKR)
Assumptive Override System (AOS)
806
815B
803B
Output Override Watch (OOW)
Concept Definition Matching (CDM)
802B

FIG. 126

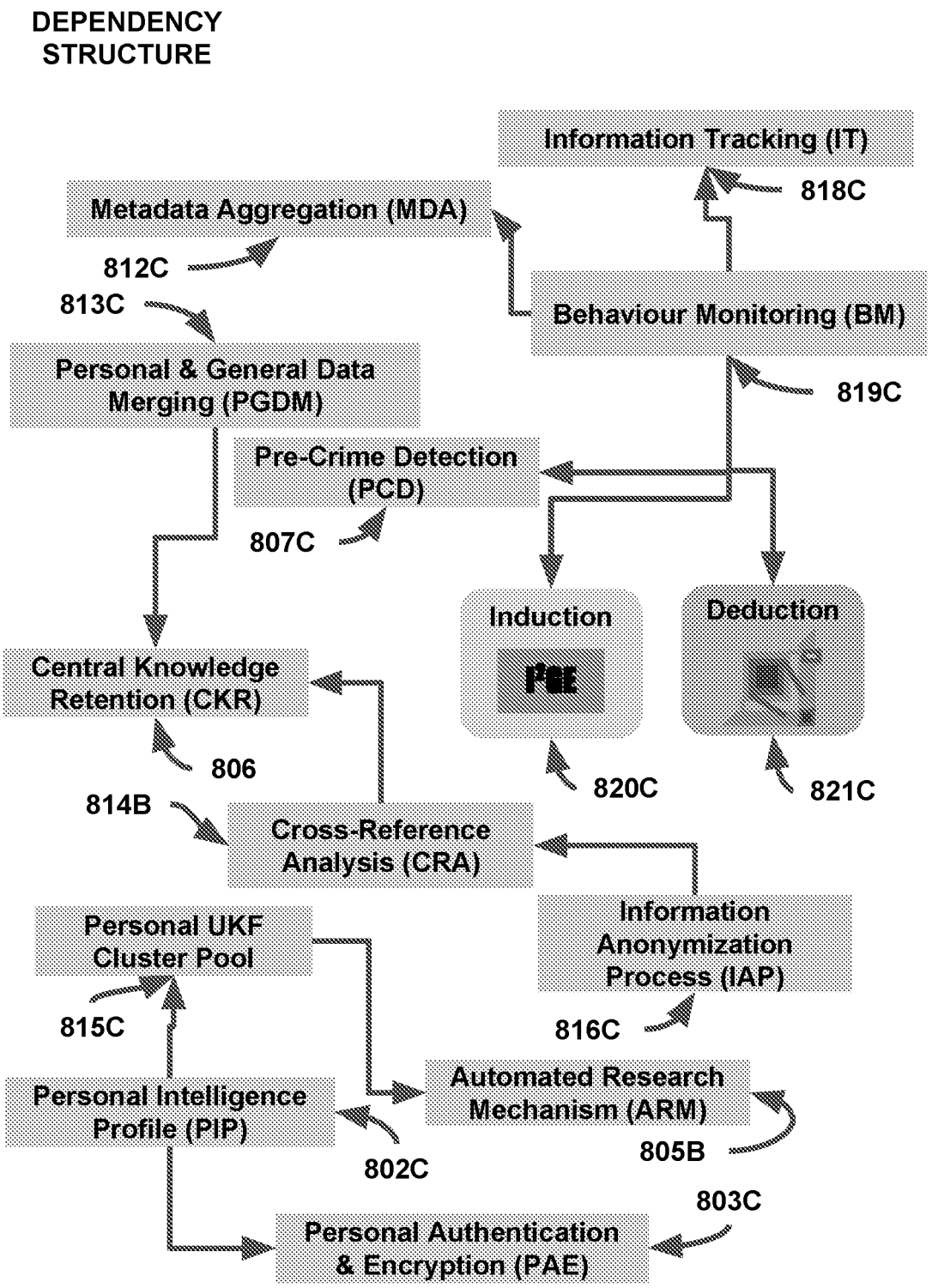

DEPENDENCY STRUCTURE
Information Tracking (IT)
818C
Metadata Aggregation (MDA)
812C
813C
Behaviour Monitoring (BM)
Personal & General Data Merging (PGDM)
819C
Pre-Crime Detection (PCD)
807C
Induction
Deduction
Central Knowledge Retention (CKR)
806
814B
820C
821C
Cross-Reference Analysis (CRA)
Personal UKF Cluster Pool
Information Anonymization Process (IAP)
815C
816C
Automated Research Mechanism (ARM)
Personal Intelligence Profile (PIP)
805B
802C
803C
Personal Authentication & Encryption (PAE)

FIG. 127

DEPENDENCY STRUCTURE

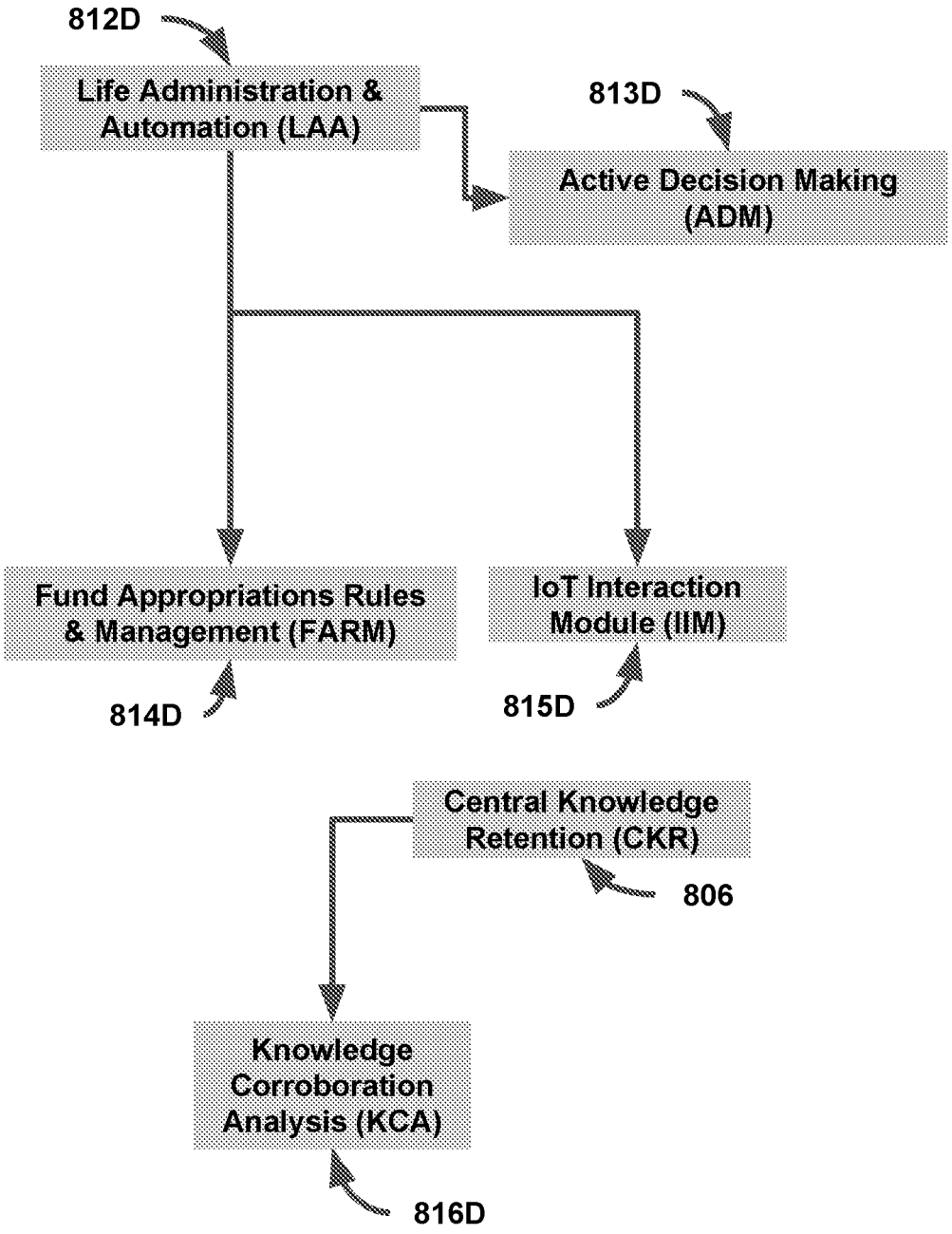


FIG. 128

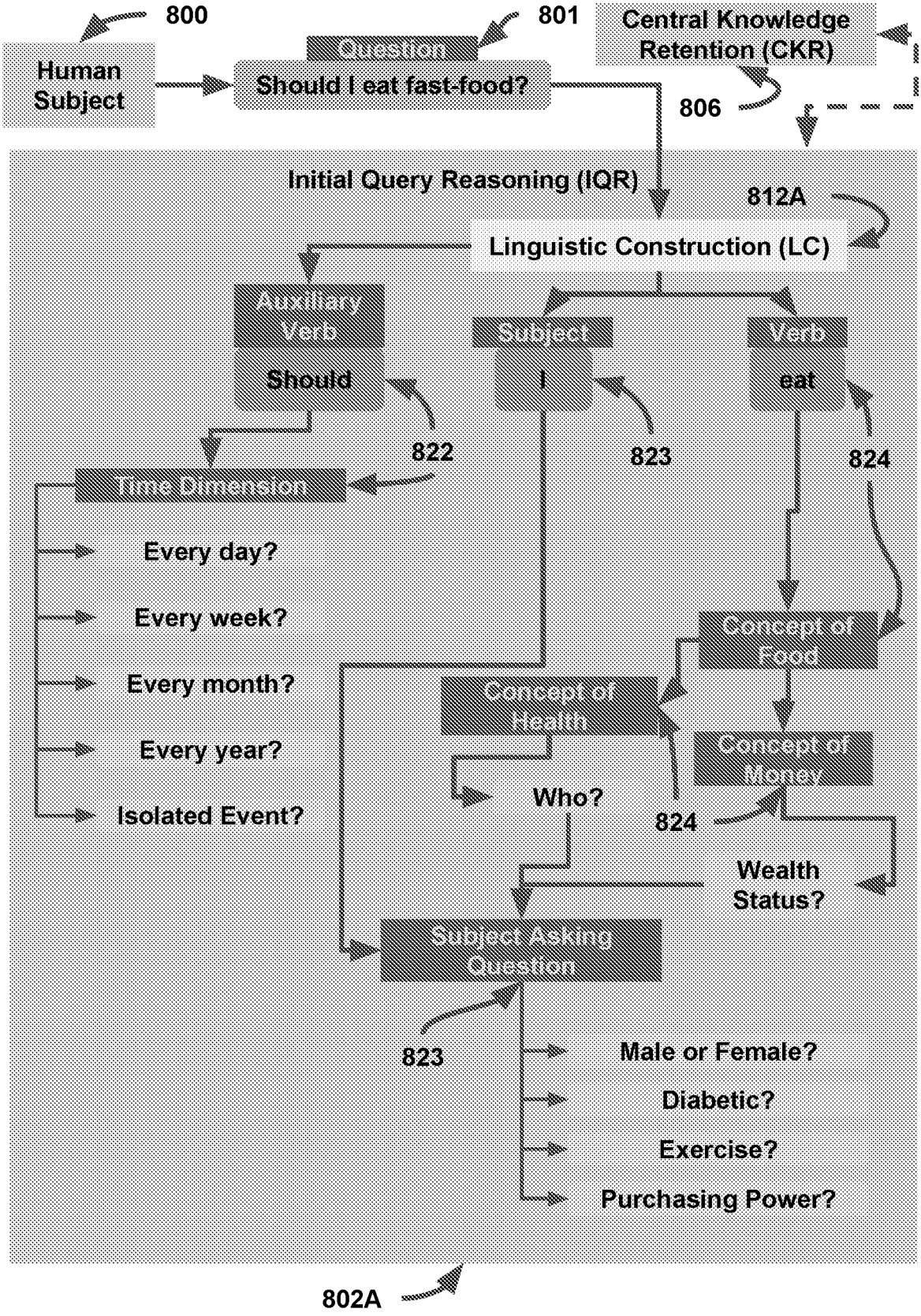

800
801
Central Knowledge Retention (CKR)
Human Subject
Question
Should I eat fast-food?
806
Initial Query Reasoning (IQR)
812A
Linguistic Construction (LC)
Auxiliary Verb
Should
Subject
I
Verb
eat
822
823
824
Time Dimension
Every day?
Every week?
Every month?
Every year?
Isolated Event?
Concept of Food
Concept of Health
Concept of Money
Who?
824
Wealth Status?
Subject Asking Question
823
Male or Female?
Diabetic?
Exercise?
Purchasing Power?
802A

FIG. 129

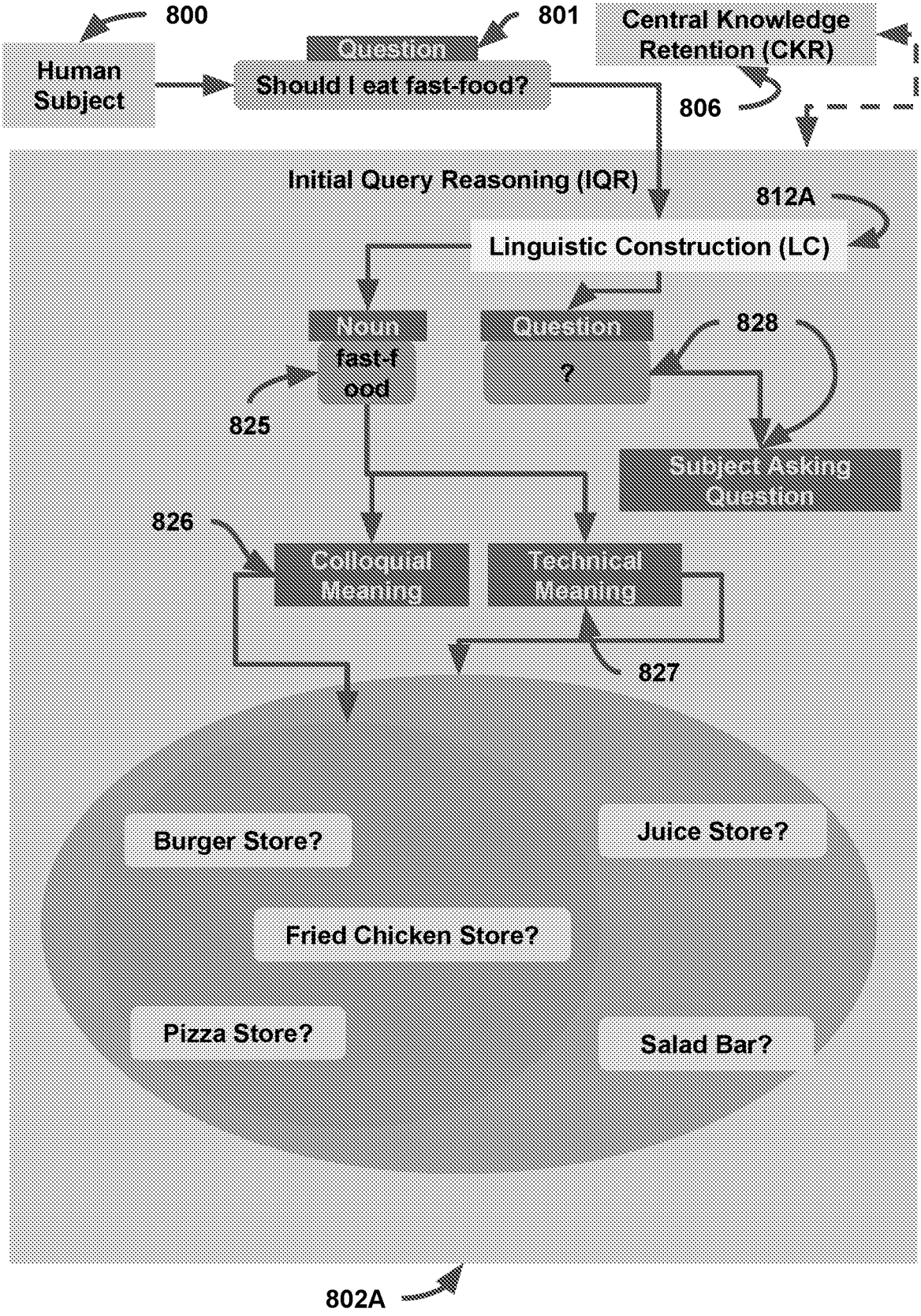

800
Human Subject
801
Question
Should I eat fast-food?
Central Knowledge Retention (CKR)
806
Initial Query Reasoning (IQR)
812A
Linguistic Construction (LC)
Noun
fast-food
825
Question
?
828
Subject Asking Question
826
Colloquial Meaning
Technical Meaning
827
Burger Store?
Juice Store?
Fried Chicken Store?
Pizza Store?
Salad Bar?
802A

FIG. 130

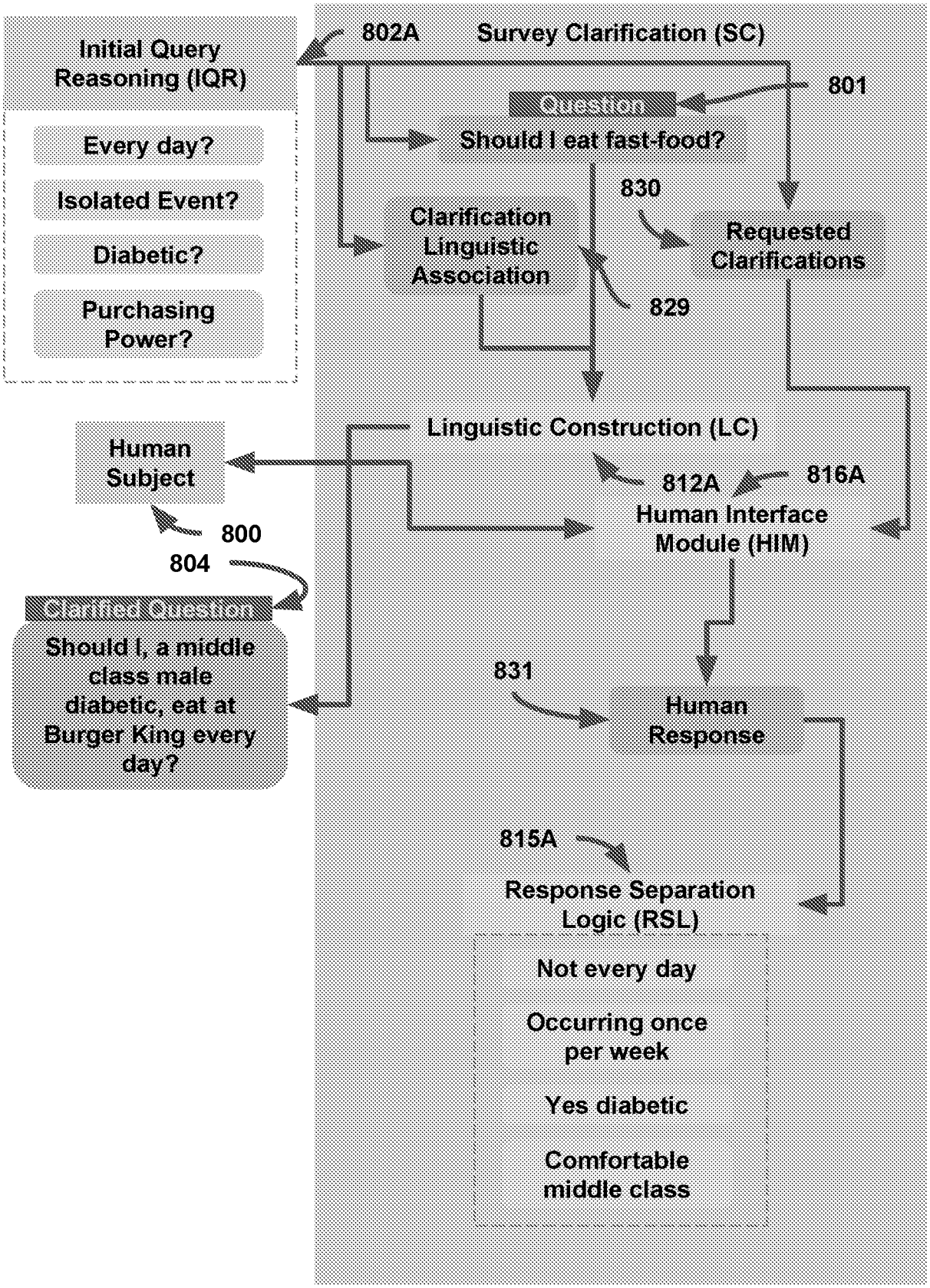

Initial Query Reasoning (IQR)
Every day?
Isolated Event?
Diabetic?
Purchasing Power?
802A
Survey Clarification (SC)
801
Question
Should I eat fast-food?
830
Clarification Linguistic Association
Requested Clarifications
829
Linguistic Construction (LC)
Human Subject
812A
816A
Human Interface Module (HIM)
800
804
Clarified Question
Should I, a middle class male diabetic, eat at Burger King every day?
831
Human Response
815A
Response Separation Logic (RSL)
Not every day
Occurring once per week
Yes diabetic
Comfortable middle class

FIG. 131

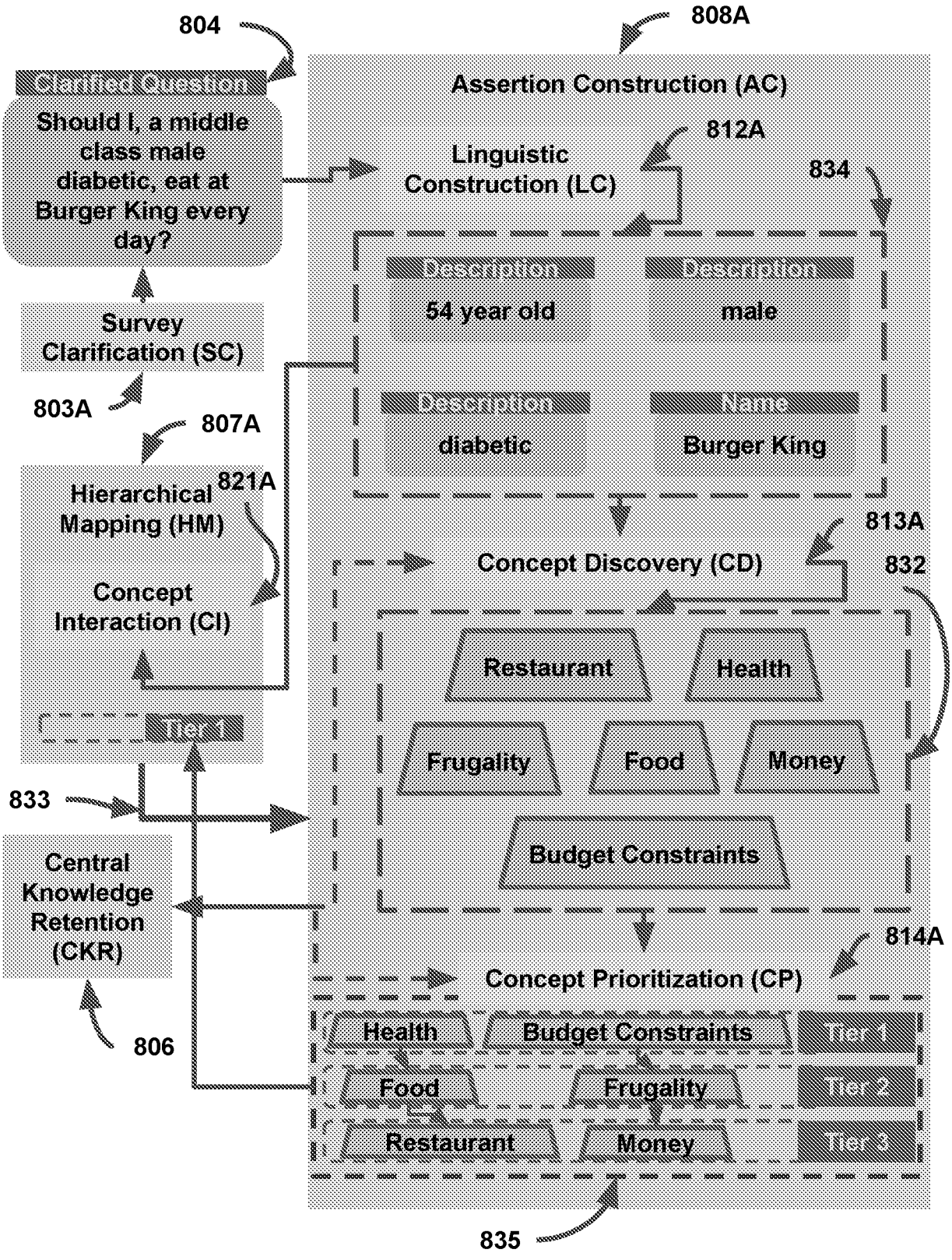

804
808A
Original Question
Should I, a middle class male diabetic, eat at Burger King every day?
Assertion Construction (AC)
812A
Linguistic Construction (LC)
834
Description
54 year old
Description
male
Description
diabetic
Name
Burger King
Survey Clarification (SC)
803A
807A
Hierarchical Mapping (HM)
821A
Concept Interaction (CI)
Tier 1
813A
Concept Discovery (CD)
832
Restaurant
Health
Frugality
Food
Money
Budget Constraints
833
Central Knowledge Retention (CKR)
806
814A
Concept Prioritization (CP)
Health
Budget Constraints
Tier 1
Food
Frugality
Tier 2
Restaurant
Money
Tier 3
835

FIG. 132

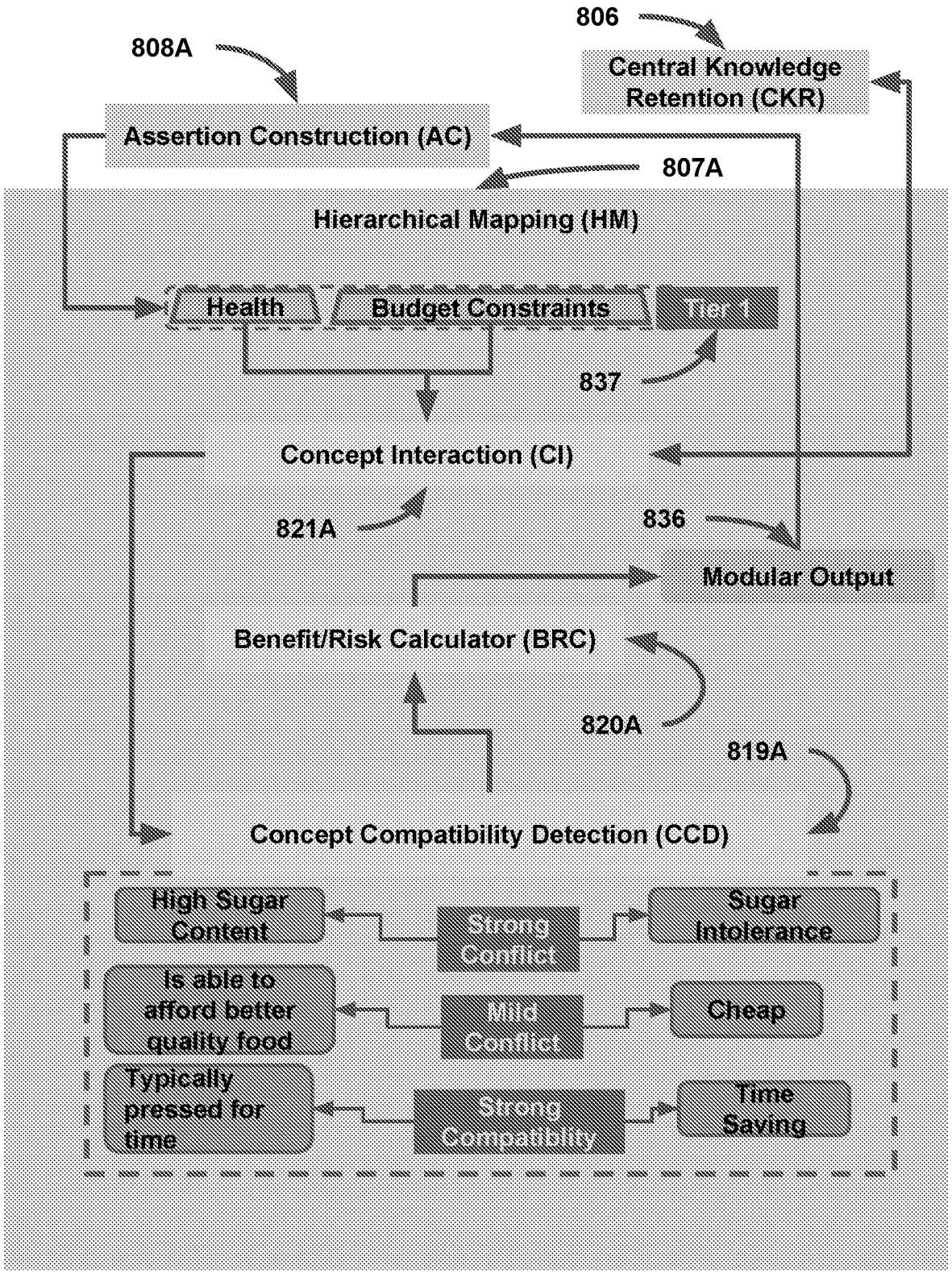

806
808A
Central Knowledge Retention (CKR)
Assertion Construction (AC)
807A
Hierarchical Mapping (HM)
Health
Budget Constraints
Tier 1
837
Concept Interaction (CI)
821A
836
Modular Output
Benefit/Risk Calculator (BRC)
820A
819A
Concept Compatibility Detection (CCD)
High Sugar Content
Strong Conflict
Sugar Intolerance
Is able to afford better quality food
Mild Conflict
Cheap
Typically pressed for time
Strong Compatibility
Time Saving

FIG. 133

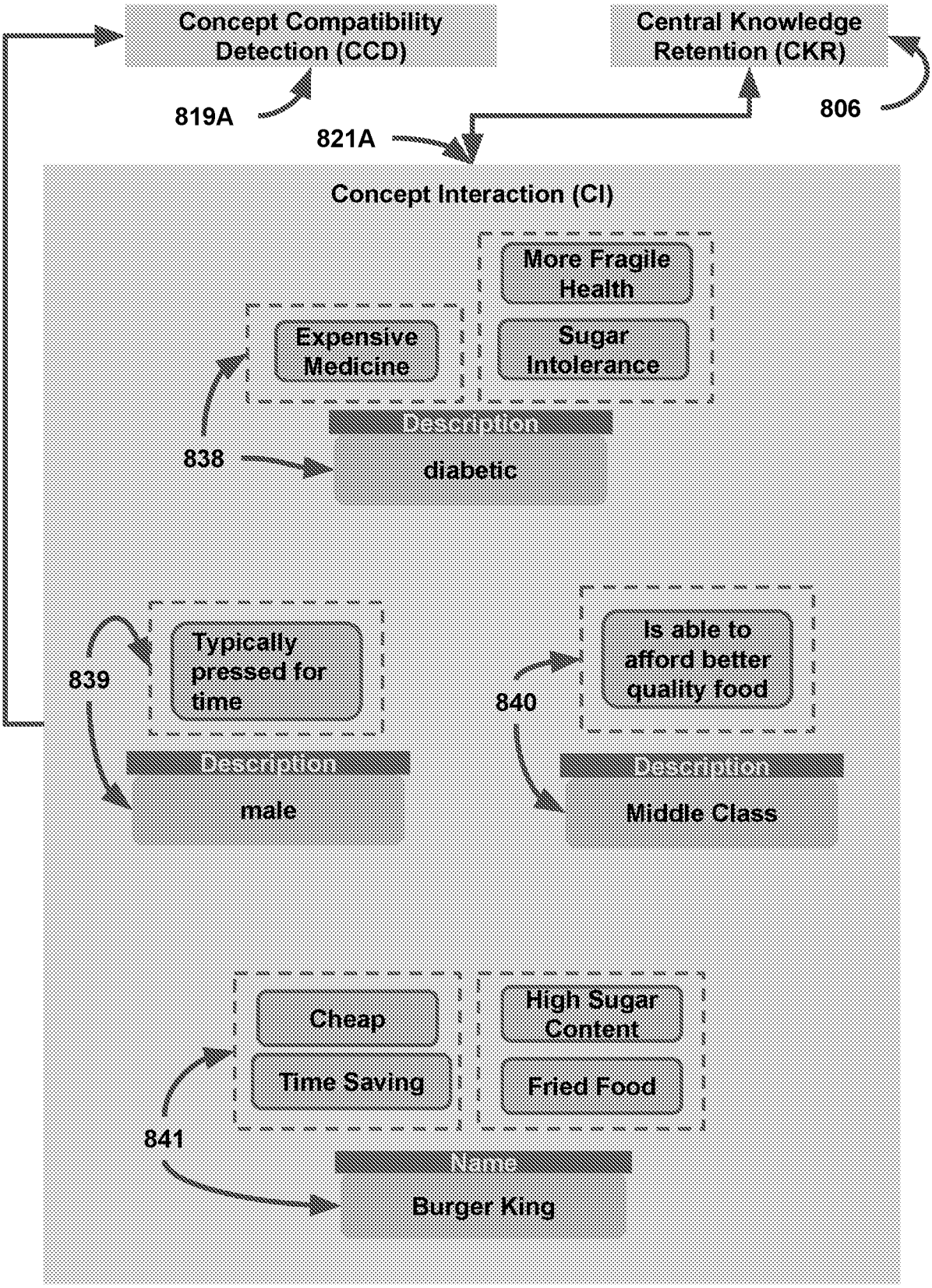

Concept Compatibility Detection (CCD)
Central Knowledge Retention (CKR)
819A
821A
806
Concept Interaction (CI)
More Fragile Health
Expensive Medicine
Sugar Intolerance
Description
838
diabetic
839
Typically pressed for time
Description
male
840
Is able to afford better quality food
Description
Middle Class
Cheap
High Sugar Content
Time Saving
Fried Food
841
Name
Burger King

FIG. 134

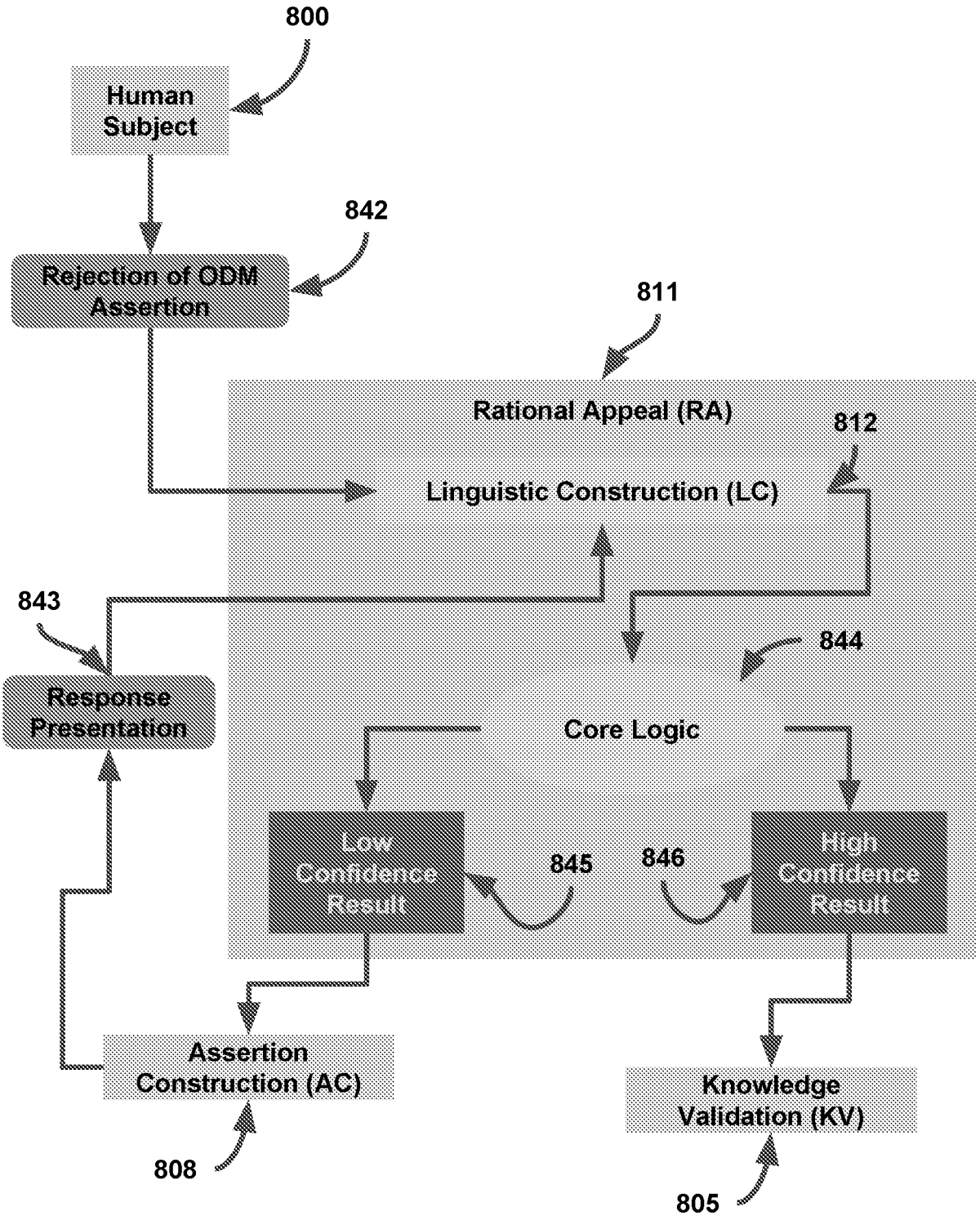

800
Human Subject
842
Rejection of ODM Assertion
811
Rational Appeal (RA)
812
Linguistic Construction (LC)
843
Response Presentation
844
Core Logic
Low Confidence Result
845
846
High Confidence Result
Assertion Construction (AC)
808
Knowledge Validation (KV)
805

FIG. 135

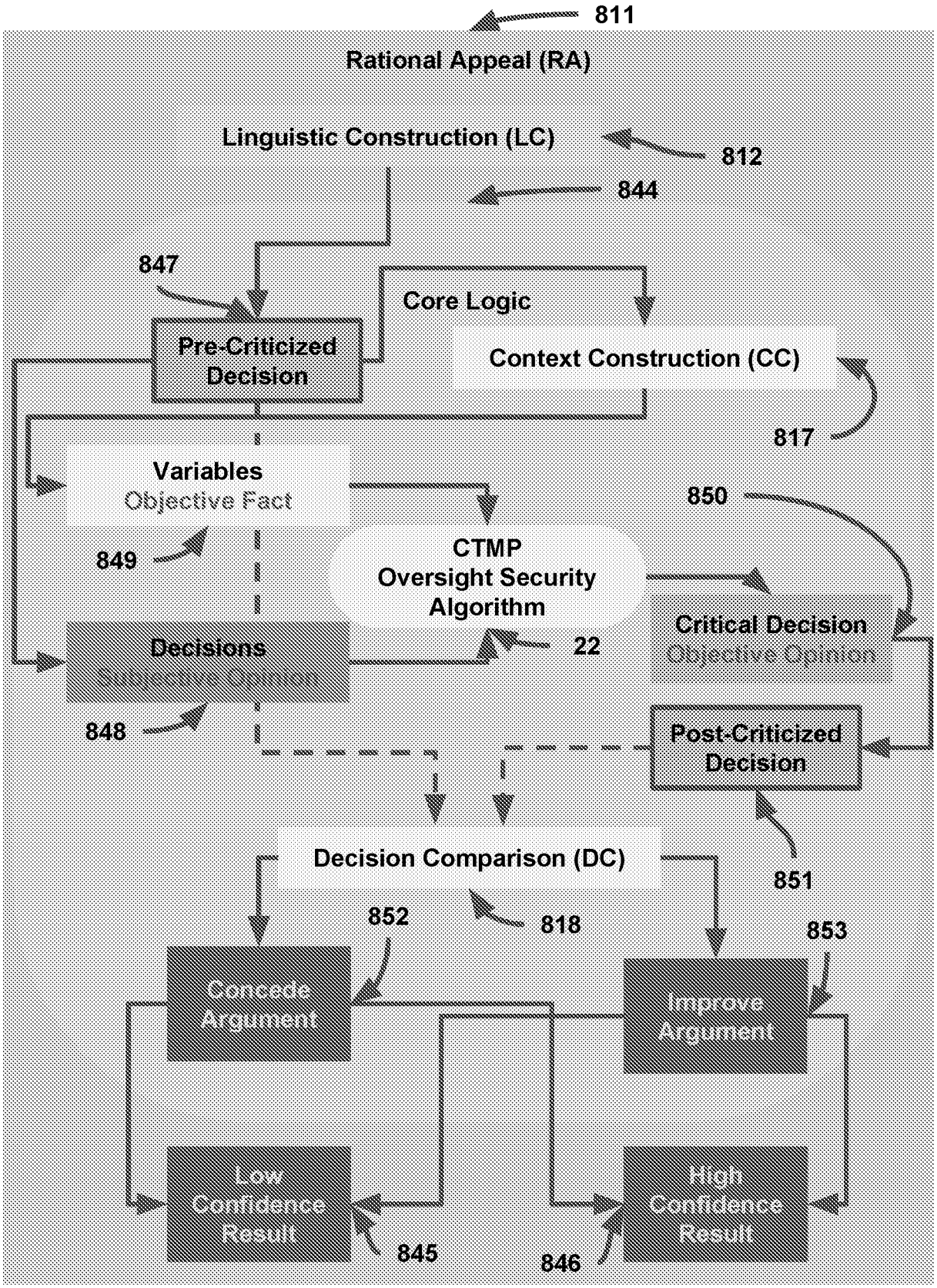

811
Rational Appeal (RA)
Linguistic Construction (LC)
812
844
847
Core Logic
Pre-Criticized Decision
Context Construction (CC)
817
Variables
Objective Fact
850
849
CTMP
Oversight Security Algorithm
Critical Decision
Objective Opinion
Decisions
22
848
Post-Criticized Decision
Decision Comparison (DC)
851
852
818
853
Concede Argument
Improve Argument
Low Confidence Result
High Confidence Result
845
846

FIG. 136

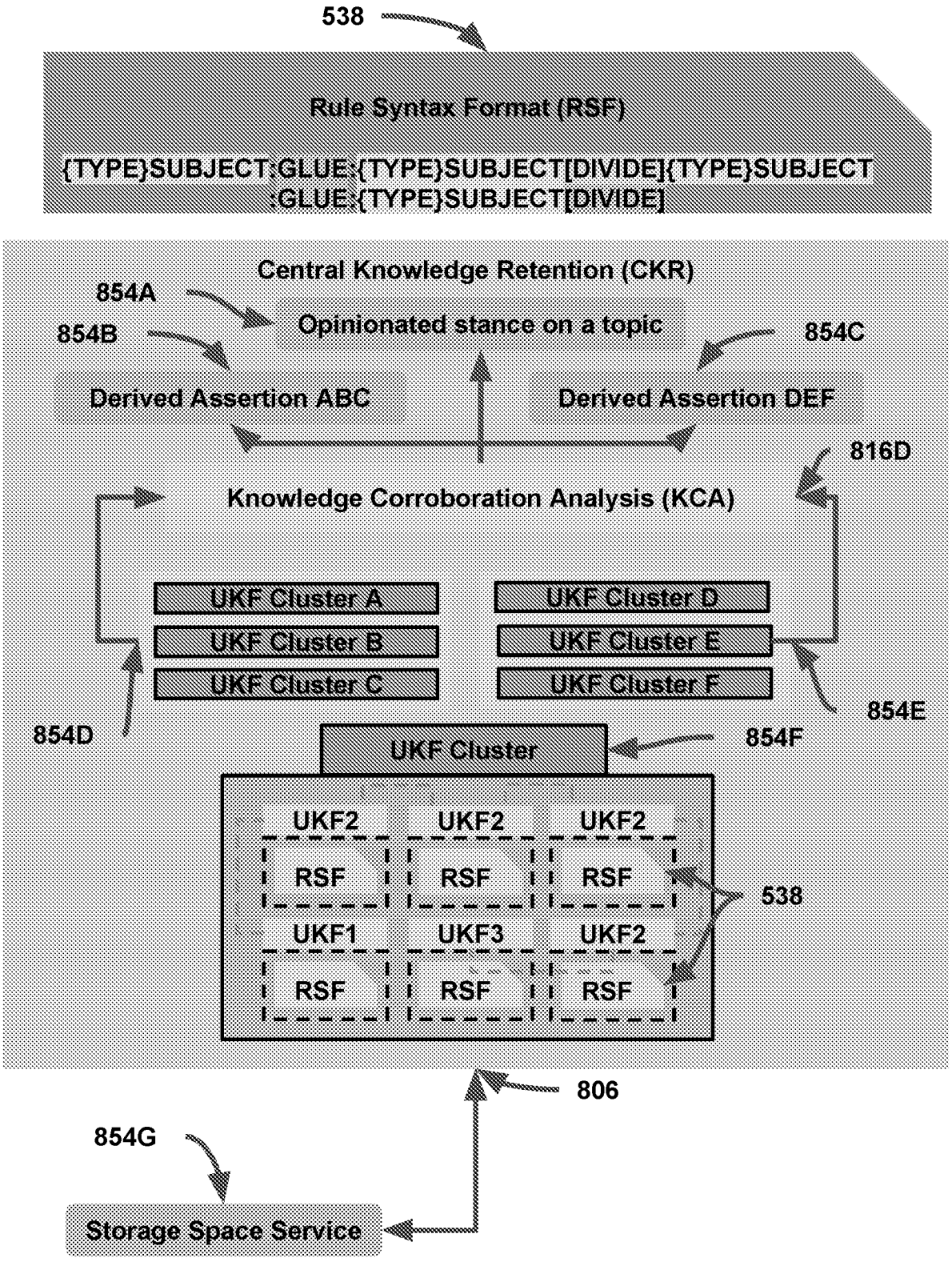

538
Rule Syntax Format (RSF)
{TYPE}SUBJECT:GLUE:{TYPE}SUBJECT[DIVIDE]{TYPE}SUBJECT
:GLUE:{TYPE}SUBJECT[DIVIDE]
Central Knowledge Retention (CKR)
854A
854B
Opinionated stance on a topic
854C
Derived Assertion ABC
Derived Assertion DEF
816D
Knowledge Corroboration Analysis (KCA)
UKF Cluster A
UKF Cluster B
UKF Cluster C
UKF Cluster D
UKF Cluster E
UKF Cluster F
854D
854E
UKF Cluster
854F
UKF2
UKF2
UKF2
RSF
RSF
RSF
538
UKF1
UKF3
UKF2
RSF
RSF
RSF
806
854G
Storage Space Service

FIG. 137

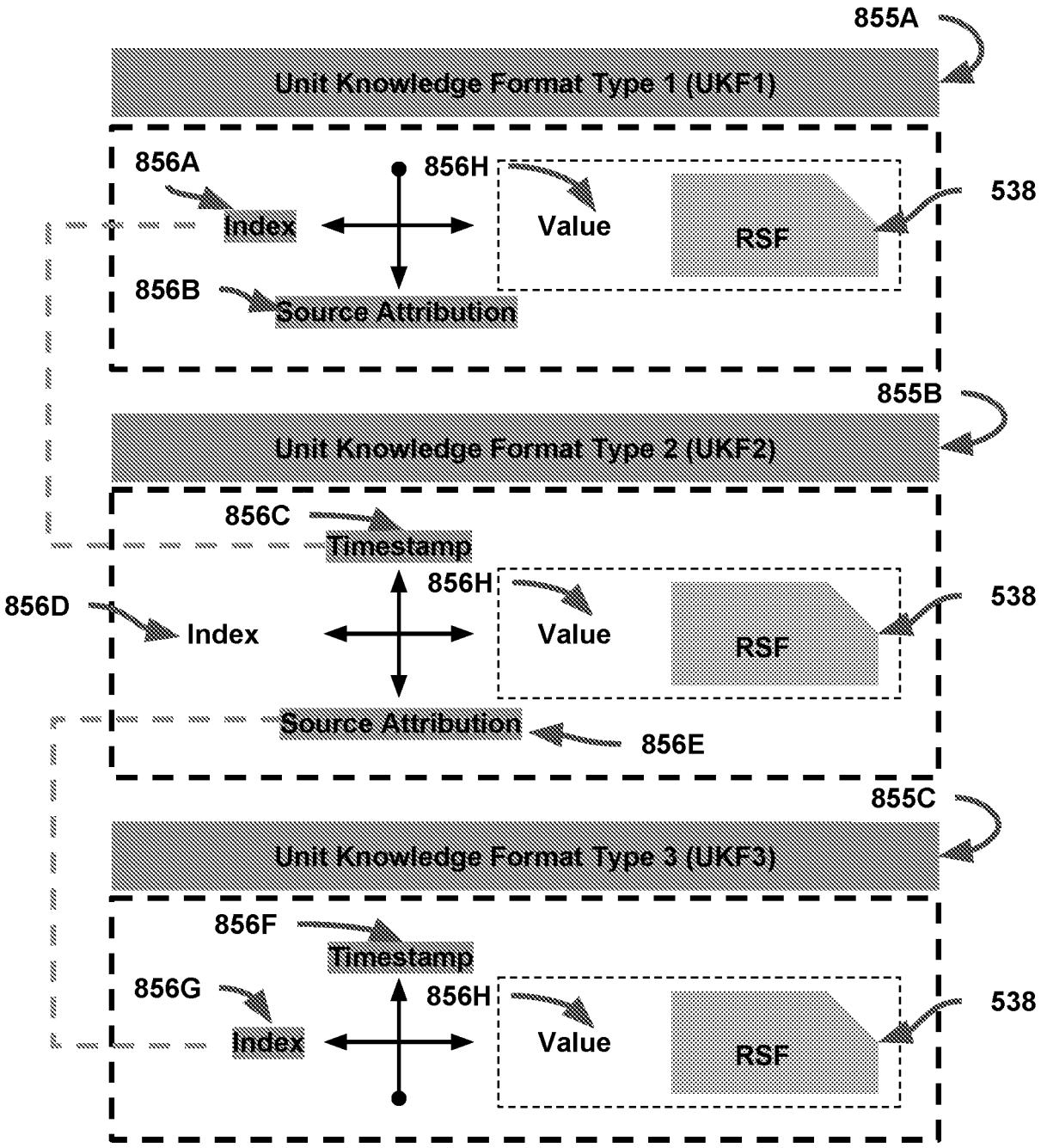

855A
Unit Knowledge Format Type 1 (UKF1)
856A
Index
856H
Value
RSF
538
856B
Source Attribution
855B
Unit Knowledge Format Type 2 (UKF2)
856C
Timestamp
856D
Index
856H
Value
RSF
538
Source Attribution
856E
855C
Unit Knowledge Format Type 3 (UKF3)
856F
Timestamp
856G
Index
856H
Value
RSF
538

FIG. 138

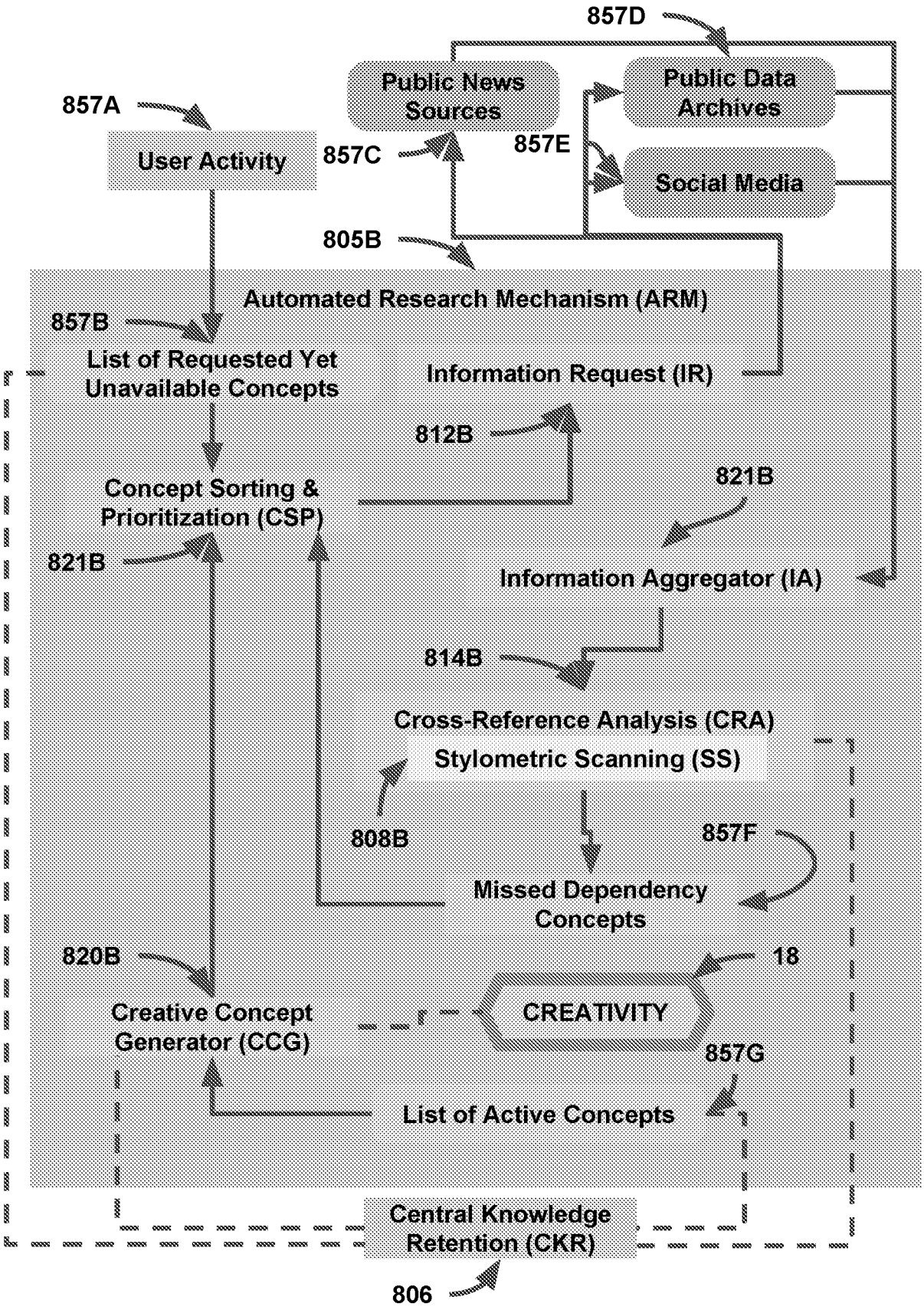

857D
Public News Sources
Public Data Archives
857A
User Activity
857C
857E
Social Media
805B
Automated Research Mechanism (ARM)
857B
List of Requested Yet Unavailable Concepts
Information Request (IR)
812B
Concept Sorting & Prioritization (CSP)
821B
821B
Information Aggregator (IA)
814B
Cross-Reference Analysis (CRA)
Stylometric Scanning (SS)
808B
857F
Missed Dependency Concepts
820B
18
Creative Concept Generator (CCG)
CREATIVITY
857G
List of Active Concepts
Central Knowledge Retention (CKR)
806

FIG. 139

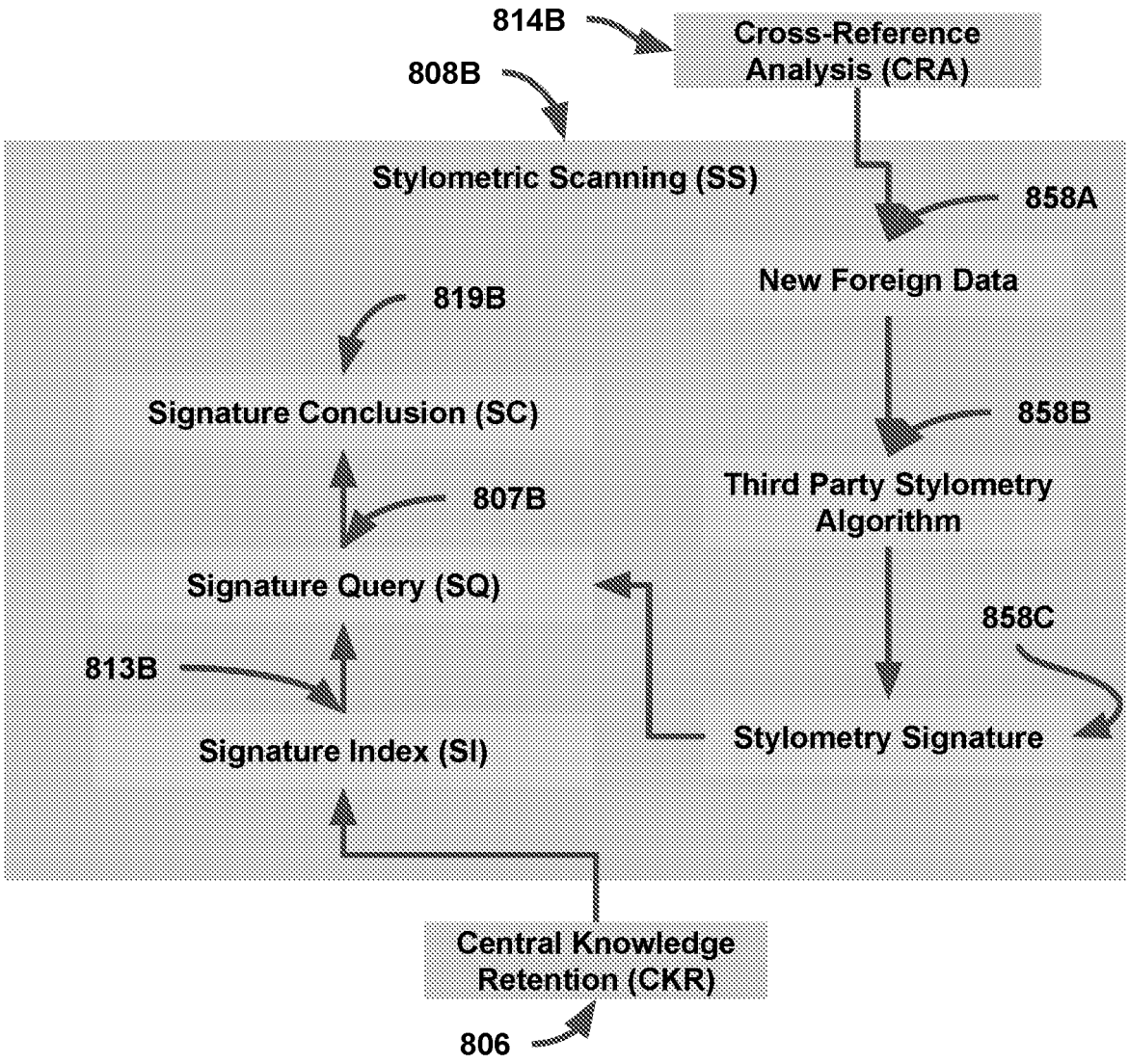

814B
Cross-Reference Analysis (CRA)
808B
Stylometric Scanning (SS)
858A
New Foreign Data
819B
Signature Conclusion (SC)
858B
Third Party Stylometry Algorithm
807B
Signature Query (SQ)
858C
813B
Stylometry Signature
Signature Index (SI)
Central Knowledge Retention (CKR)
806

FIG. 140

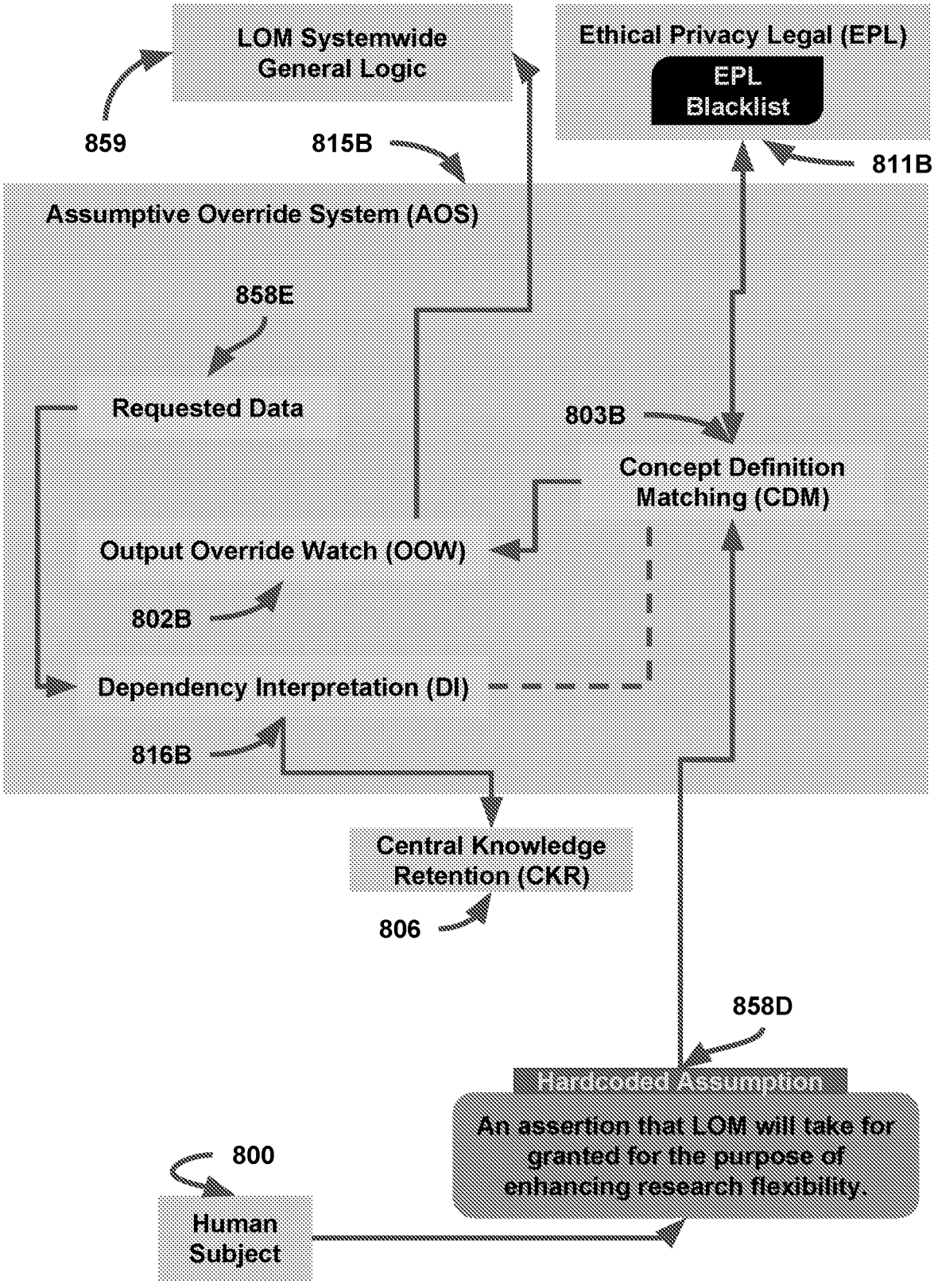

LOM Systemwide General Logic
Ethical Privacy Legal (EPL)
EPL Blacklist
859
815B
811B
Assumptive Override System (AOS)
858E
Requested Data
803B
Concept Definition Matching (CDM)
Output Override Watch (OOW)
802B
Dependency Interpretation (DI)
816B
Central Knowledge Retention (CKR)
806
858D
Hardcoded Assumption
An assertion that LOM will take for granted for the purpose of enhancing research flexibility.
800
Human Subject

FIG. 141

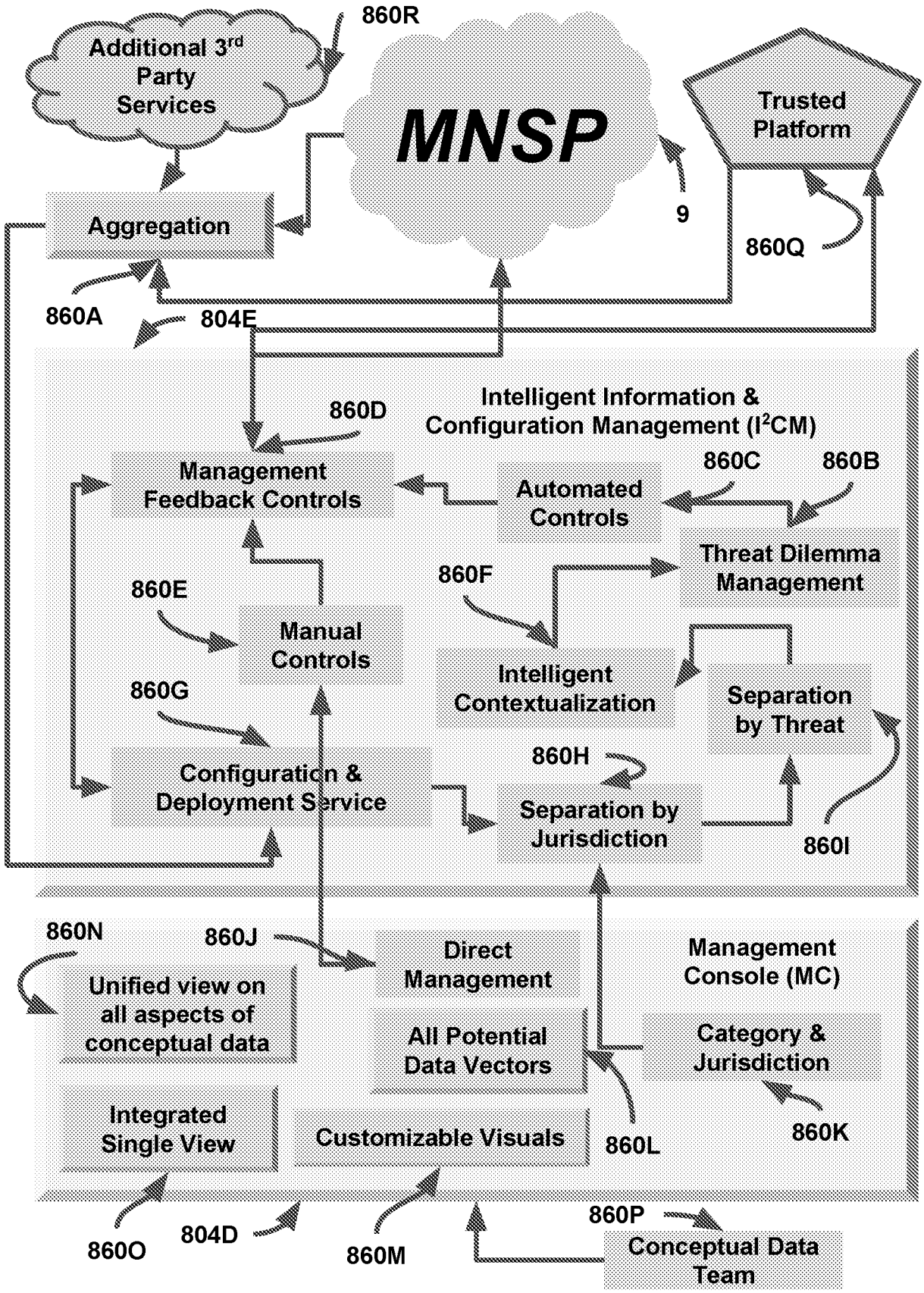

860R
Additional 3rd Party Services
MNSP
Trusted Platform
Aggregation
9
860Q
860A
804E
860D
Intelligent Information & Configuration Management (I2CM)
Management Feedback Controls
Automated Controls
860C
860B
Threat Dilemma Management
860F
860E
Manual Controls
Intelligent Contextualization
Separation by Threat
860G
860H
Configuration & Deployment Service
Separation by Jurisdiction
860I
860N
860J
Direct Management
Management Console (MC)
Unified view on all aspects of conceptual data
All Potential Data Vectors
Category & Jurisdiction
Integrated Single View
Customizable Visuals
860L
860K
860P
860O
804D
860M
Conceptual Data Team

FIG. 142

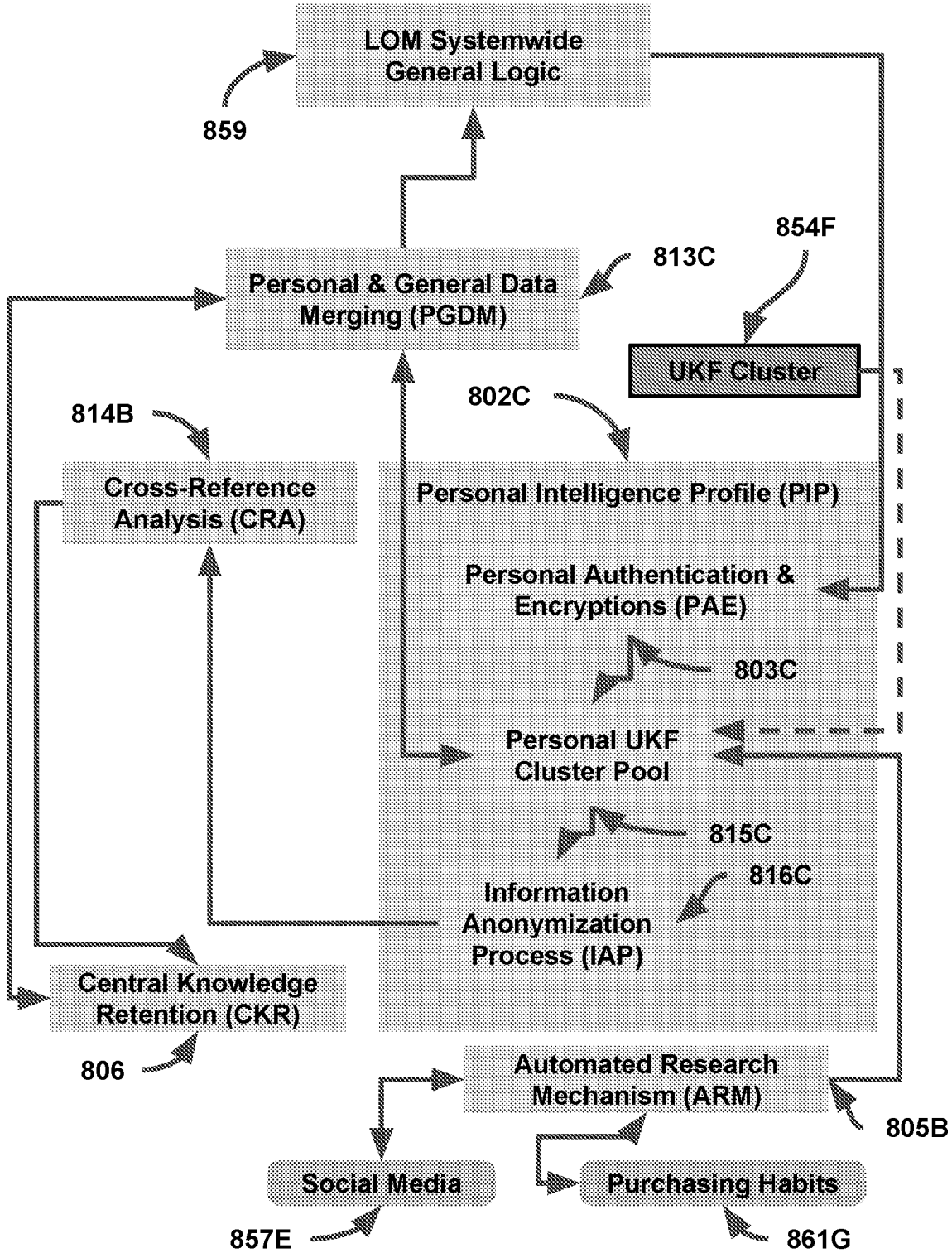

LOM Systemwide General Logic
859
854F
813C
Personal & General Data Merging (PGDM)
UKF Cluster
802C
814B
Cross-Reference Analysis (CRA)
Personal Intelligence Profile (PIP)
Personal Authentication & Encryptions (PAE)
803C
Personal UKF Cluster Pool
815C
816C
Information Anonymization Process (IAP)
Central Knowledge Retention (CKR)
806
Automated Research Mechanism (ARM)
805B
Social Media
Purchasing Habits
857E
861G

FIG. 143

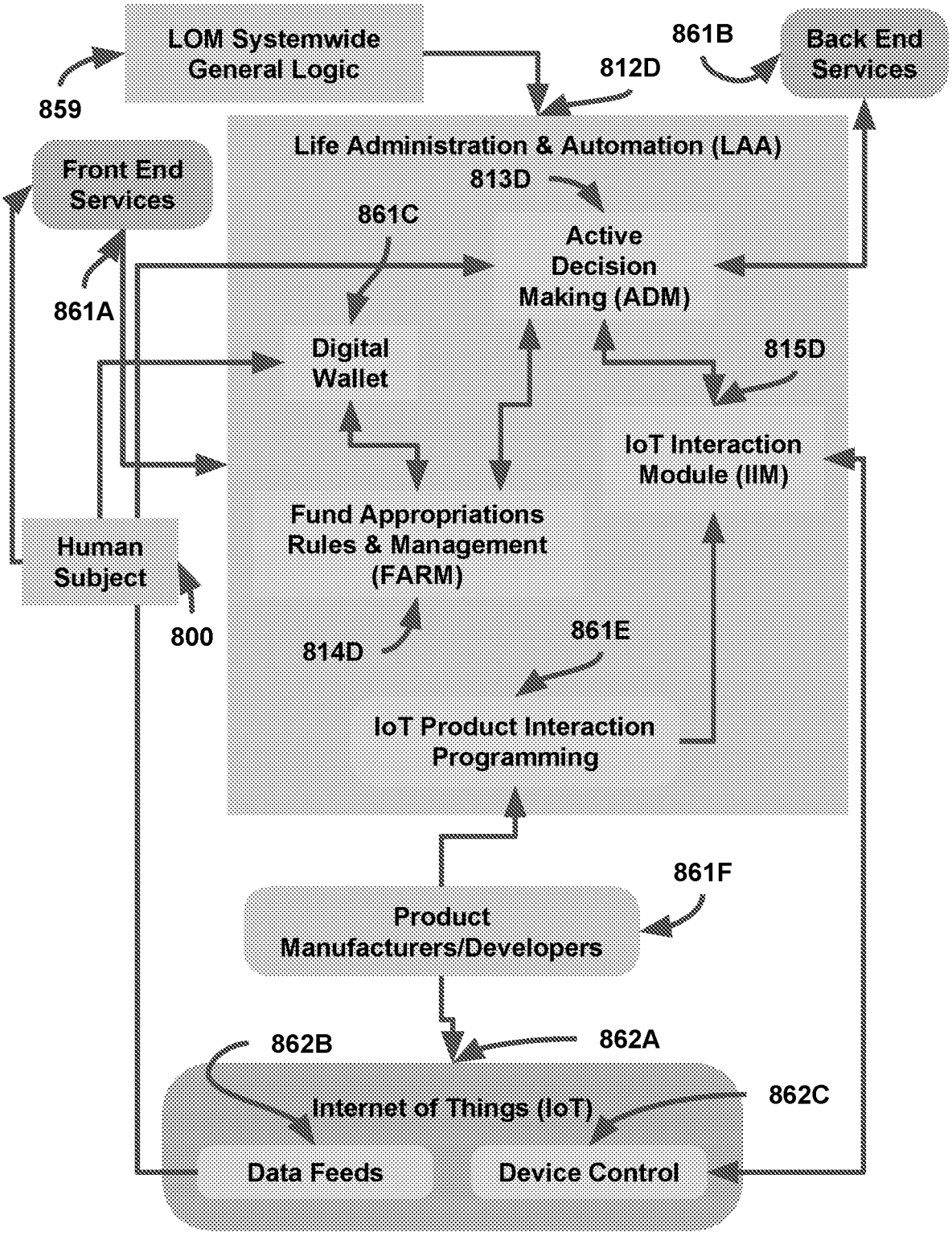

LOM Systemwide General Logic
859
812D
861B
Back End Services
Life Administration & Automation (LAA)
813D
Front End Services
861C
Active Decision Making (ADM)
861A
Digital Wallet
815D
IoT Interaction Module (IIM)
Fund Appropriations Rules & Management (FARM)
Human Subject
800
814D
861E
IoT Product Interaction Programming
861F
Product Manufacturers/Developers
862B
862A
Internet of Things (IoT)
862C
Data Feeds
Device Control

FIG. 144

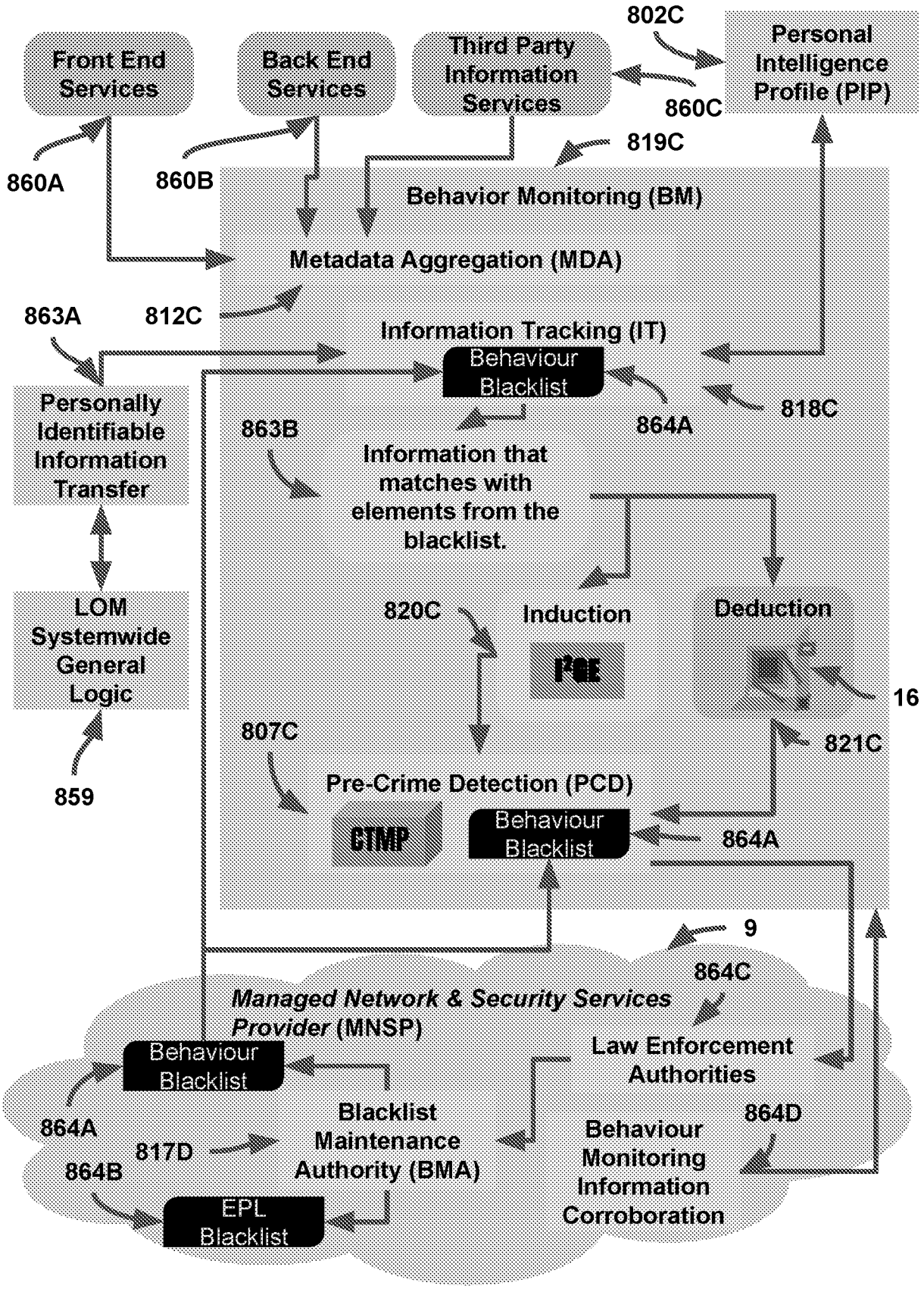

802C
Personal Intelligence Profile (PIP)
Front End Services
Back End Services
Third Party Information Services
860C
819C
860A
860B
Behavior Monitoring (BM)
Metadata Aggregation (MDA)
863A
812C
Information Tracking (IT)
Behaviour Blacklist
Personally Identifiable Information Transfer
818C
864A
863B
Information that matches with elements from the blacklist.
LOM Systemwide General Logic
820C
Induction
Deduction
PGE
16
807C
821C
859
Pre-Crime Detection (PCD)
CTMP
Behaviour Blacklist
864A
9
864C
Managed Network & Security Services Provider (MNSP)
Law Enforcement Authorities
Behaviour Blacklist
864A
Blacklist Maintenance Authority (BMA)
817D
864D
Behaviour Monitoring Information Corroboration
864B
EPL Blacklist

FIG. 145

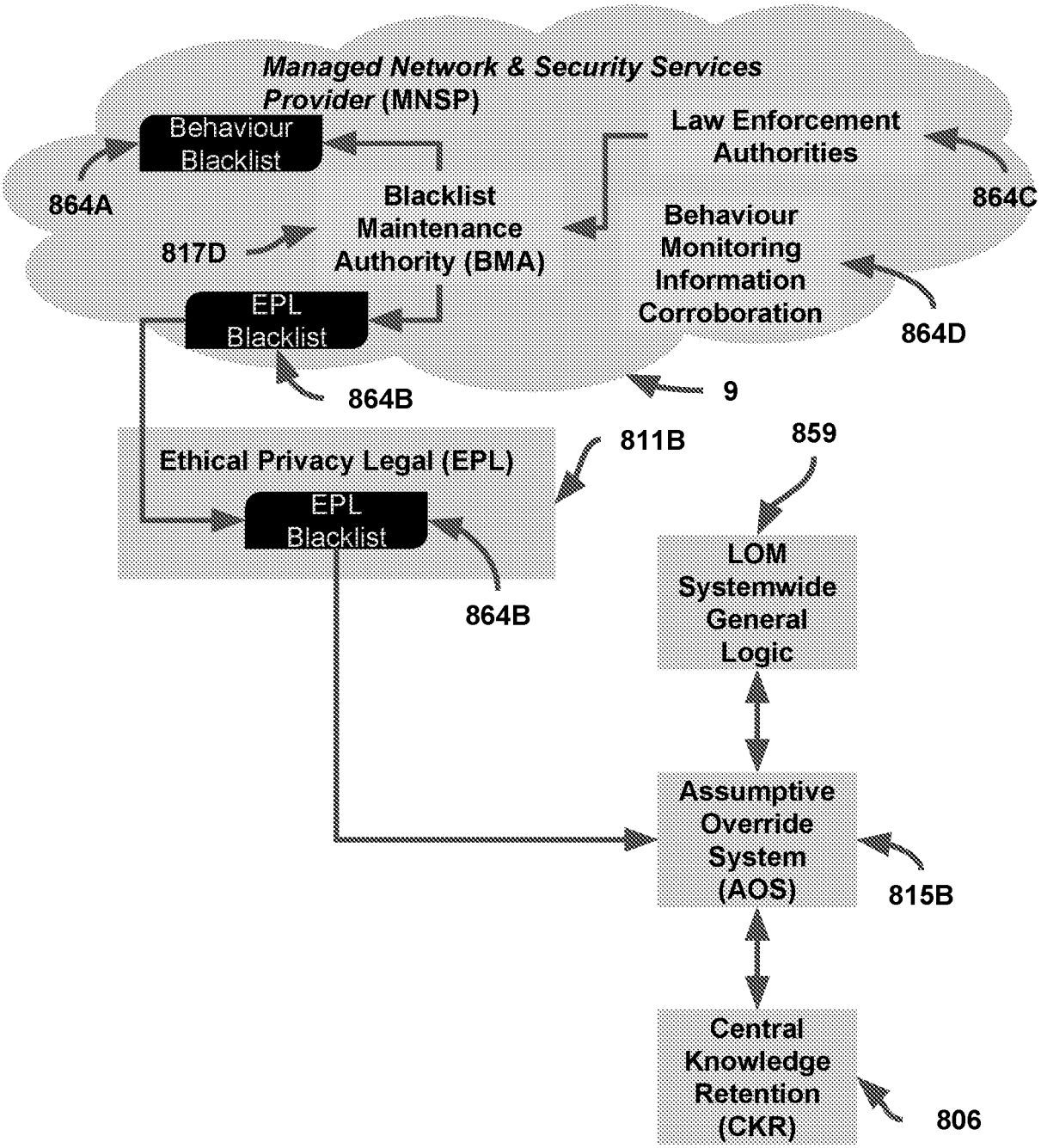

Managed Network & Security Services Provider (MNSP)
Behaviour Blacklist
864A
Blacklist Maintenance Authority (BMA)
817D
EPL Blacklist
864B
Law Enforcement Authorities
864C
Behaviour Monitoring Information Corroboration
864D
9
811B
859
Ethical Privacy Legal (EPL)
EPL Blacklist
864B
LOM Systemwide General Logic
Assumptive Override System (AOS)
815B
Central Knowledge Retention (CKR)
806

FIG. 146

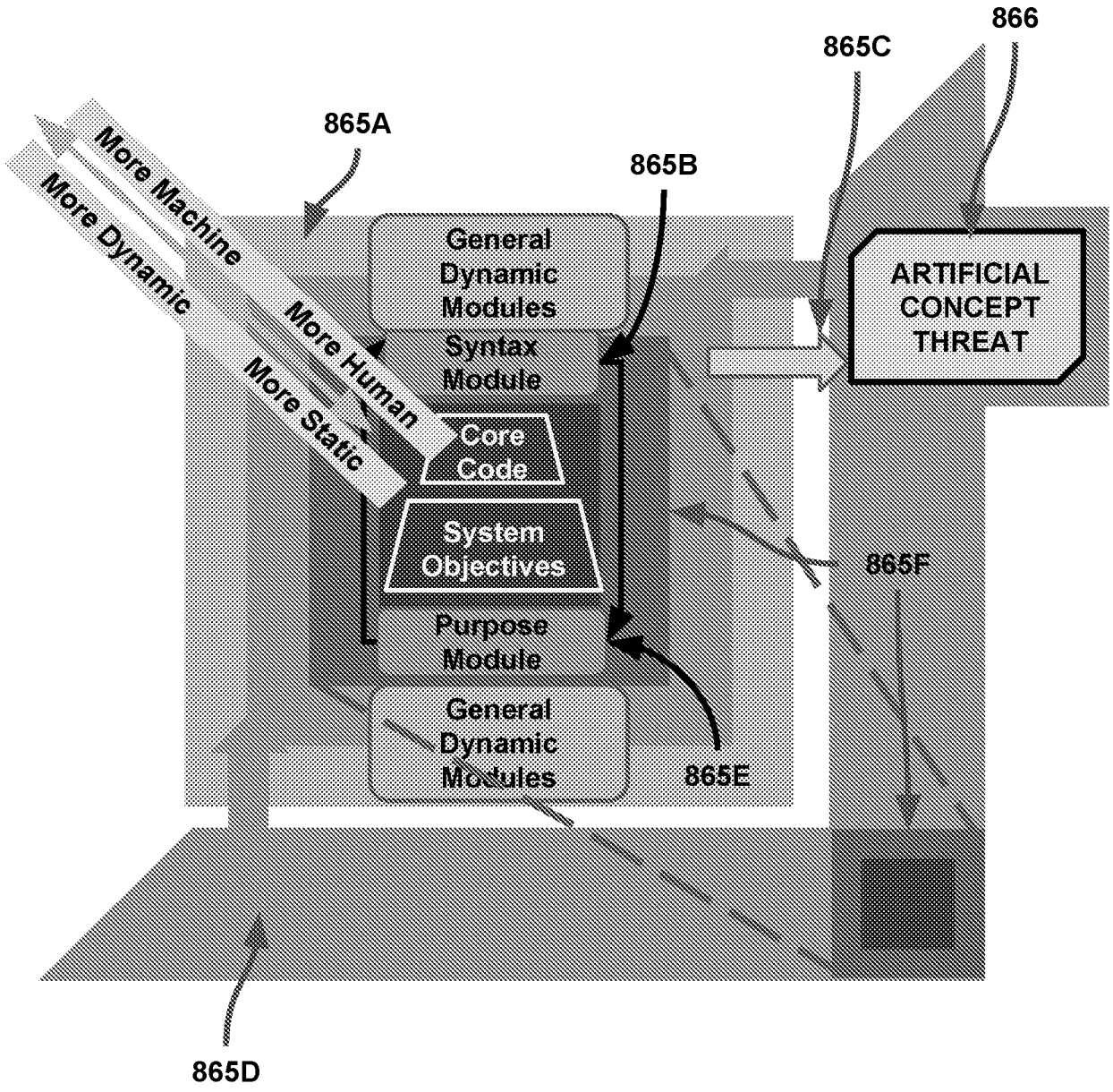

866
865C
865A
865B
More Machine
More Dynamic
More Human
More Static
General Dynamic Modules
Syntax Module
Core Code
System Objectives
Purpose Module
General Dynamic Modules
ARTIFICIAL CONCEPT THREAT
865F
865E
865D

FIG. 147

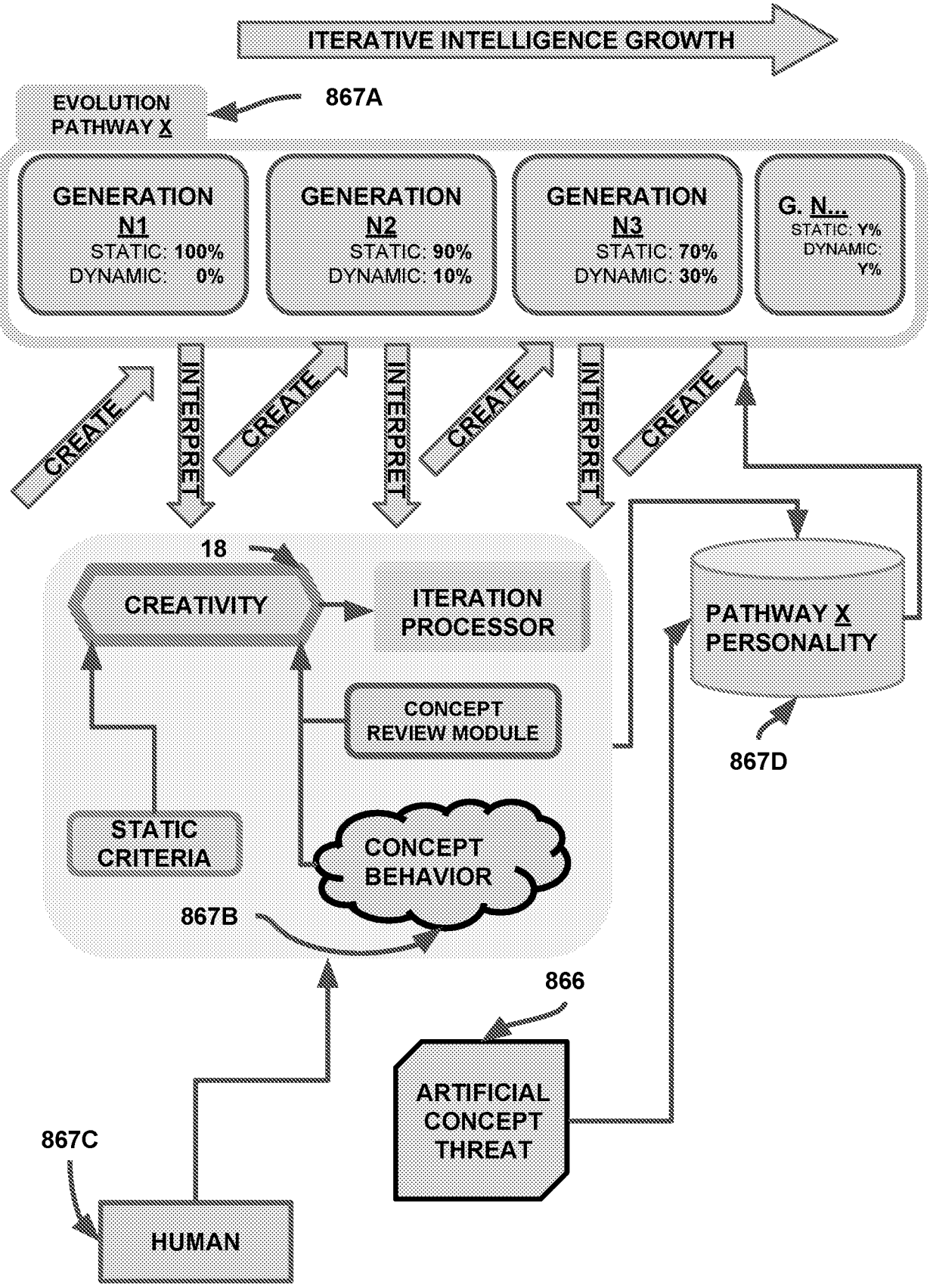

ITERATIVE INTELLIGENCE GROWTH
EVOLUTION PATHWAY X
867A
GENERATION N1
STATIC: 100%
DYNAMIC: 0%
GENERATION N2
STATIC: 90%
DYNAMIC: 10%
GENERATION N3
STATIC: 70%
DYNAMIC: 30%
G. N...
STATIC: Y%
DYNAMIC: Y%
CREATE
INTERPRET
CREATE
INTERPRET
CREATE
INTERPRET
CREATE
18
CREATIVITY
ITERATION PROCESSOR
CONCEPT REVIEW MODULE
STATIC CRITERIA
CONCEPT BEHAVIOR
867B
PATHWAY X PERSONALITY
867D
866
ARTIFICIAL CONCEPT THREAT
867C
HUMAN

FIG. 148

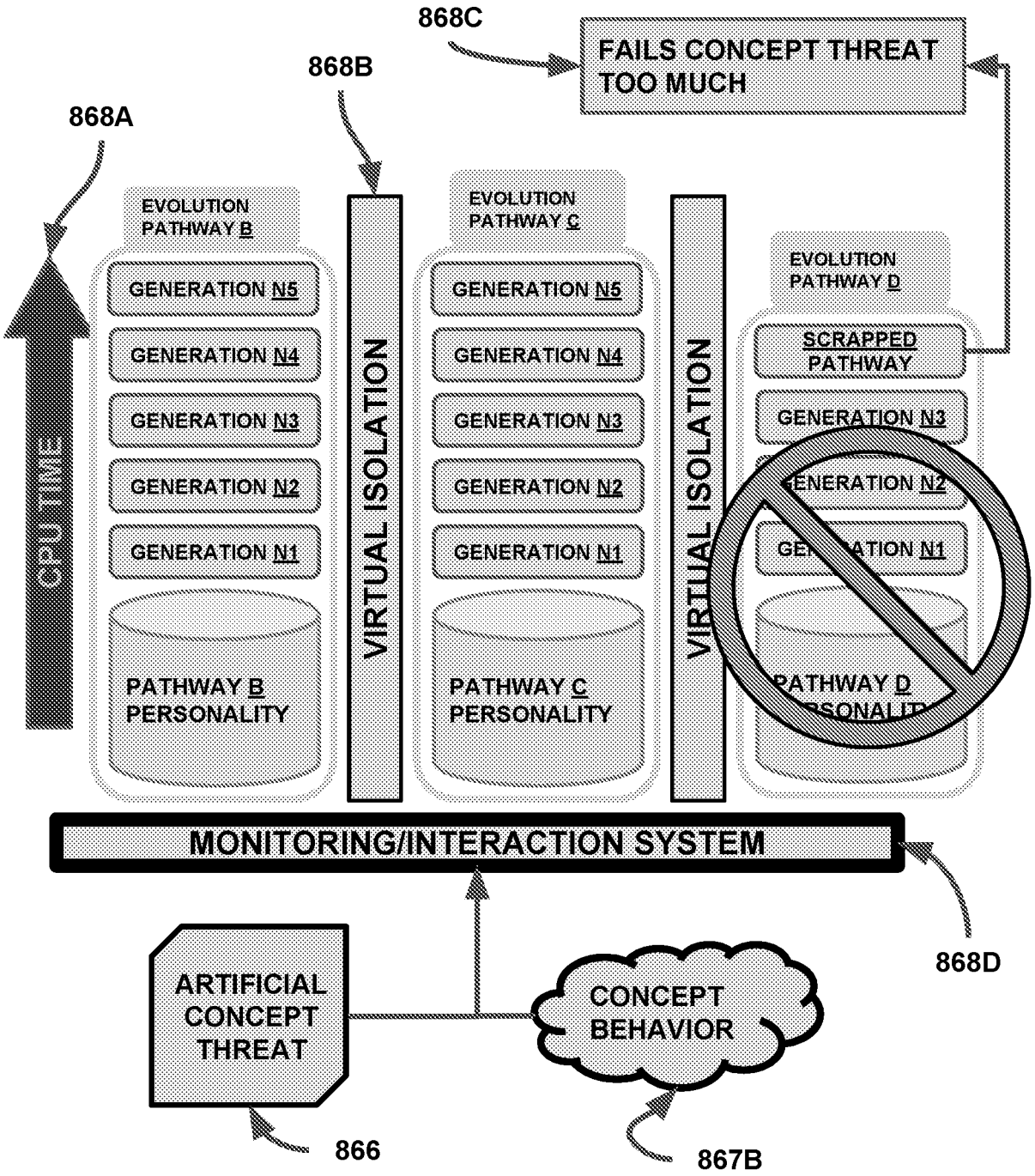

868C
FAILS CONCEPT THREAT TOO MUCH
868B
868A
EVOLUTION PATHWAY B
EVOLUTION PATHWAY C
EVOLUTION PATHWAY D
GENERATION N5
GENERATION N4
GENERATION N3
GENERATION N2
GENERATION N1
SCRAPPED PATHWAY
VIRTUAL ISOLATION
VIRTUAL ISOLATION
PATHWAY B PERSONALITY
PATHWAY C PERSONALITY
PATHWAY D PERSONALITY
CPU TIME
MONITORING/INTERACTION SYSTEM
868D
ARTIFICIAL CONCEPT THREAT
CONCEPT BEHAVIOR
866
867B

FIG. 149

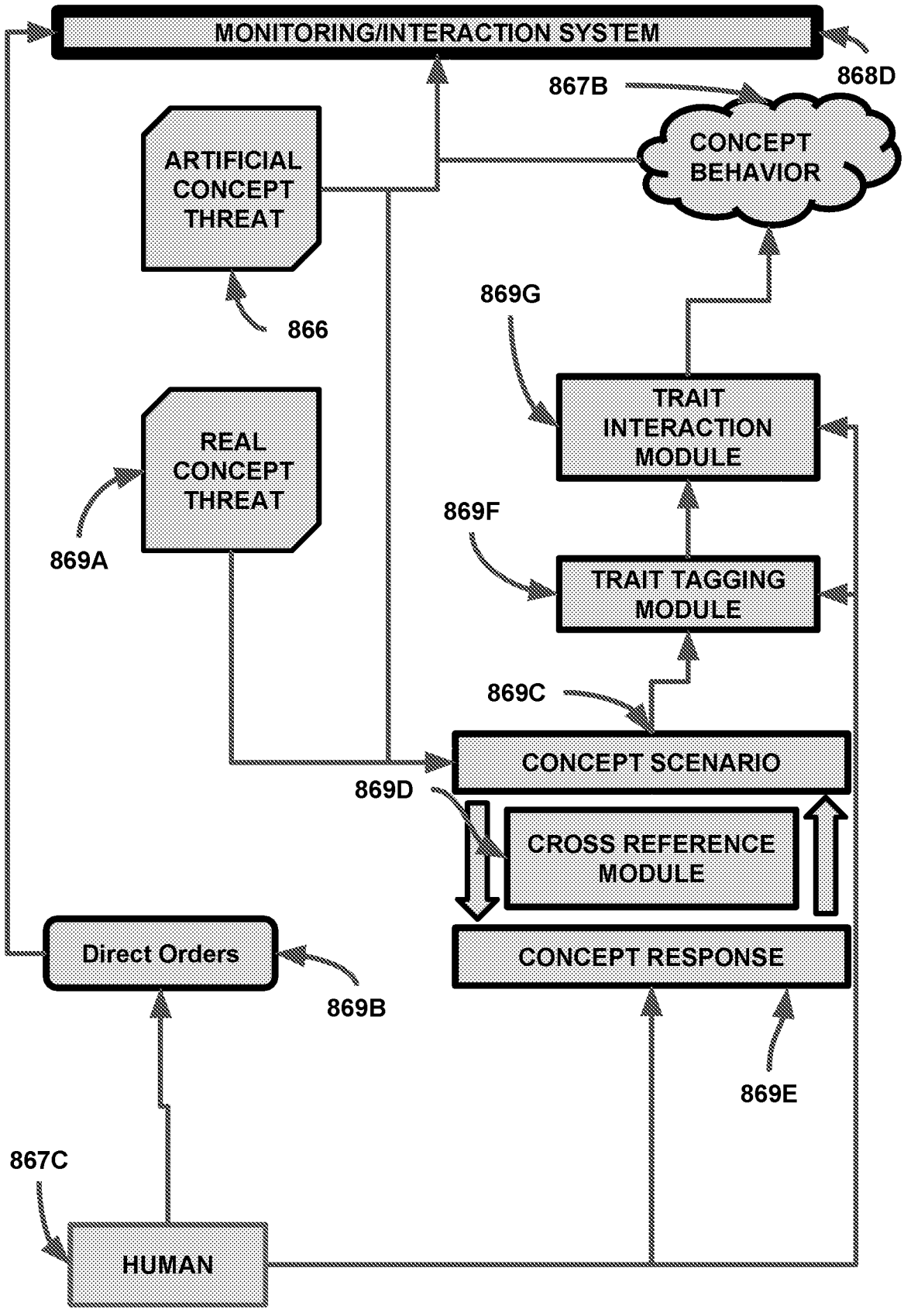

MONITORING/INTERACTION SYSTEM
868D
867B
CONCEPT BEHAVIOR
ARTIFICIAL CONCEPT THREAT
866
869G
TRAIT INTERACTION MODULE
REAL CONCEPT THREAT
869A
869F
TRAIT TAGGING MODULE
869C
CONCEPT SCENARIO
869D
CROSS REFERENCE MODULE
Direct Orders
869B
CONCEPT RESPONSE
869E
867C
HUMAN

FIG. 150

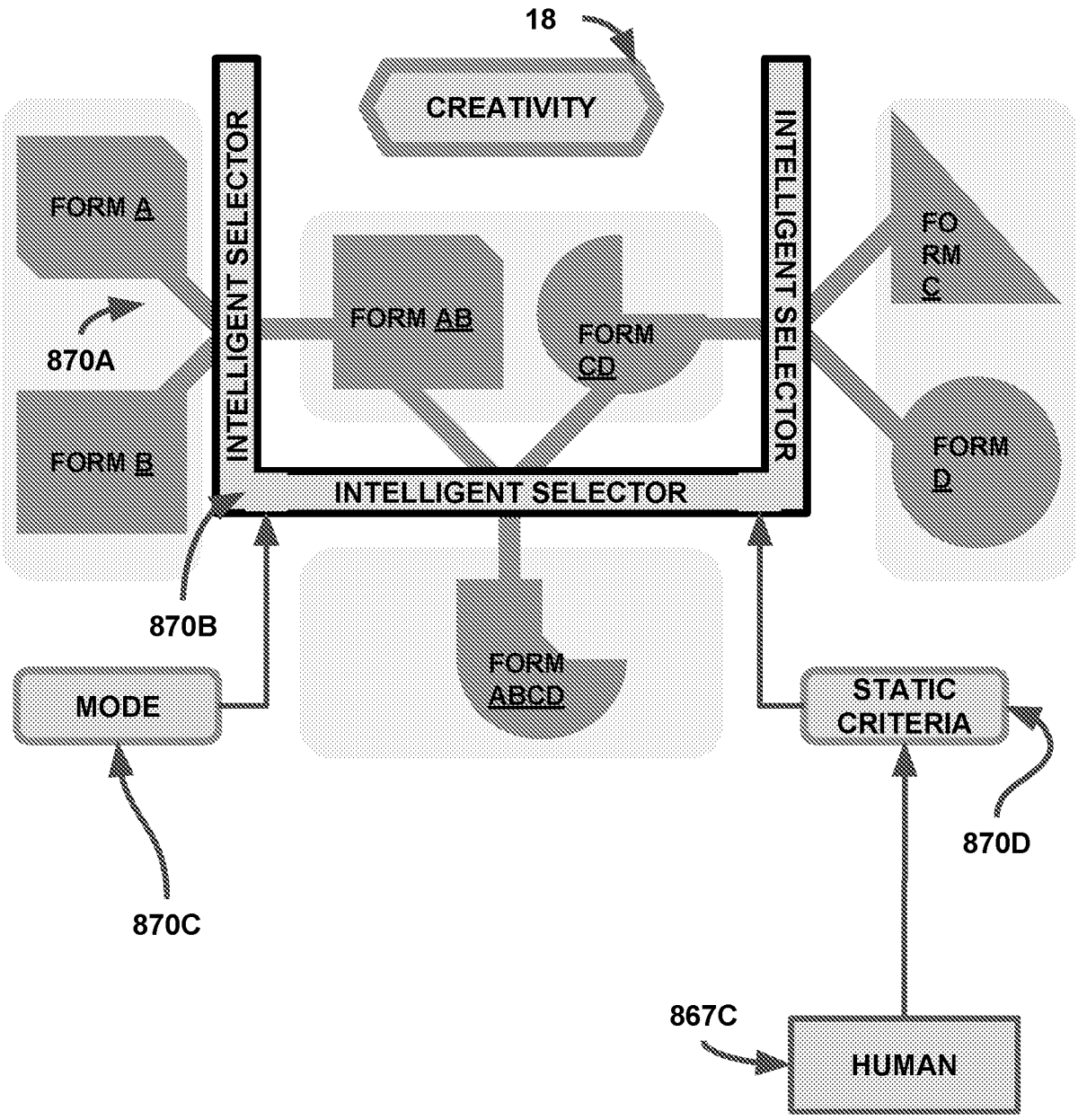

18
CREATIVITY
INTELLIGENT SELECTOR
INTELLIGENT SELECTOR
INTELLIGENT SELECTOR
FORM A
870A
FORM B
870B
FORM AB
FORM CD
FORM ABCD
FO RM C
FORM D
MODE
870C
STATIC CRITERIA
870D
867C
HUMAN

FIG. 151

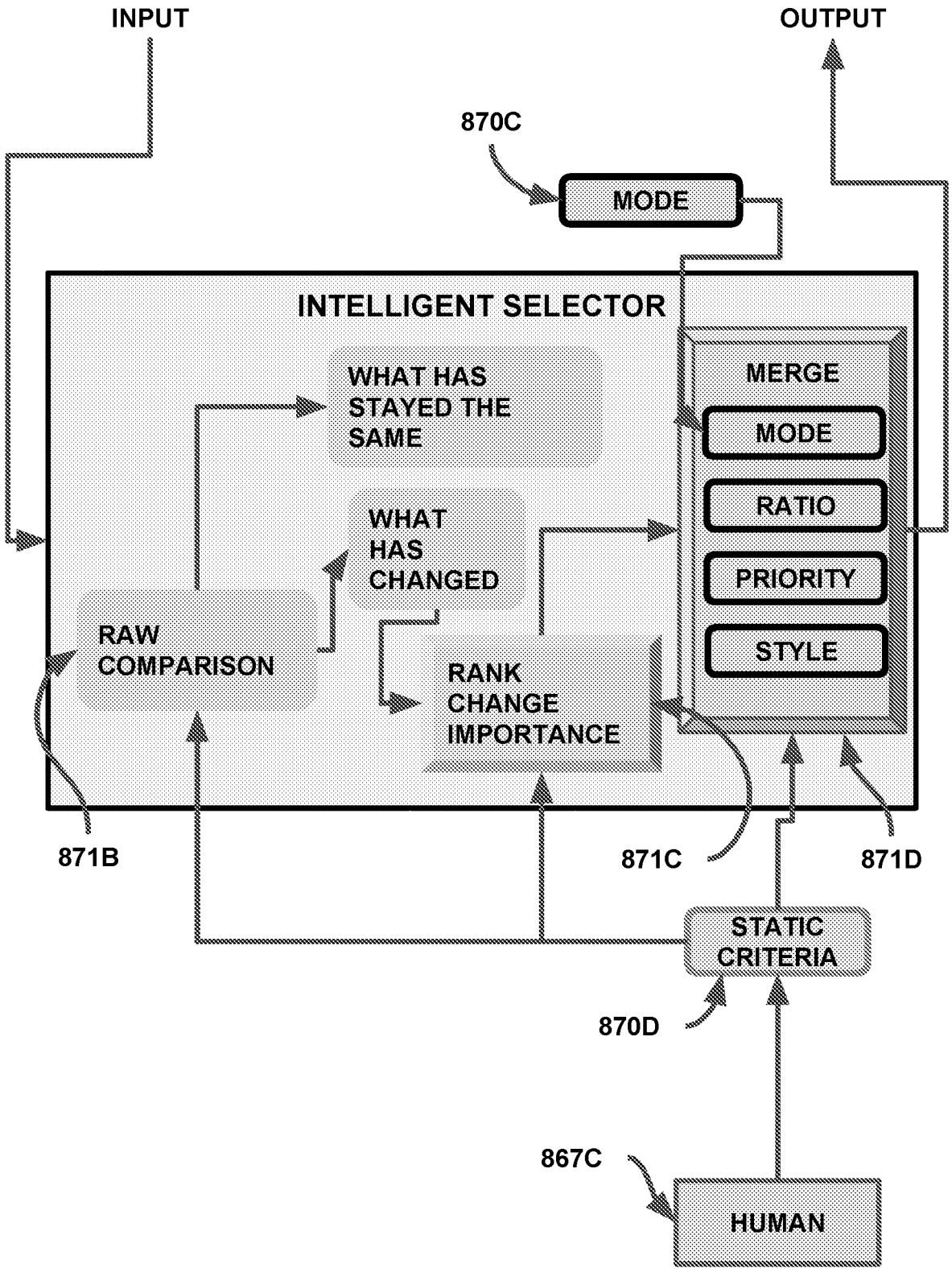

INPUT
OUTPUT
870C
MODE
INTELLIGENT SELECTOR
WHAT HAS STAYED THE SAME
MERGE
MODE
RATIO
PRIORITY
STYLE
WHAT HAS CHANGED
RAW COMPARISON
RANK CHANGE IMPORTANCE
871B
871C
871D
STATIC CRITERIA
870D
867C
HUMAN

FIG. 152

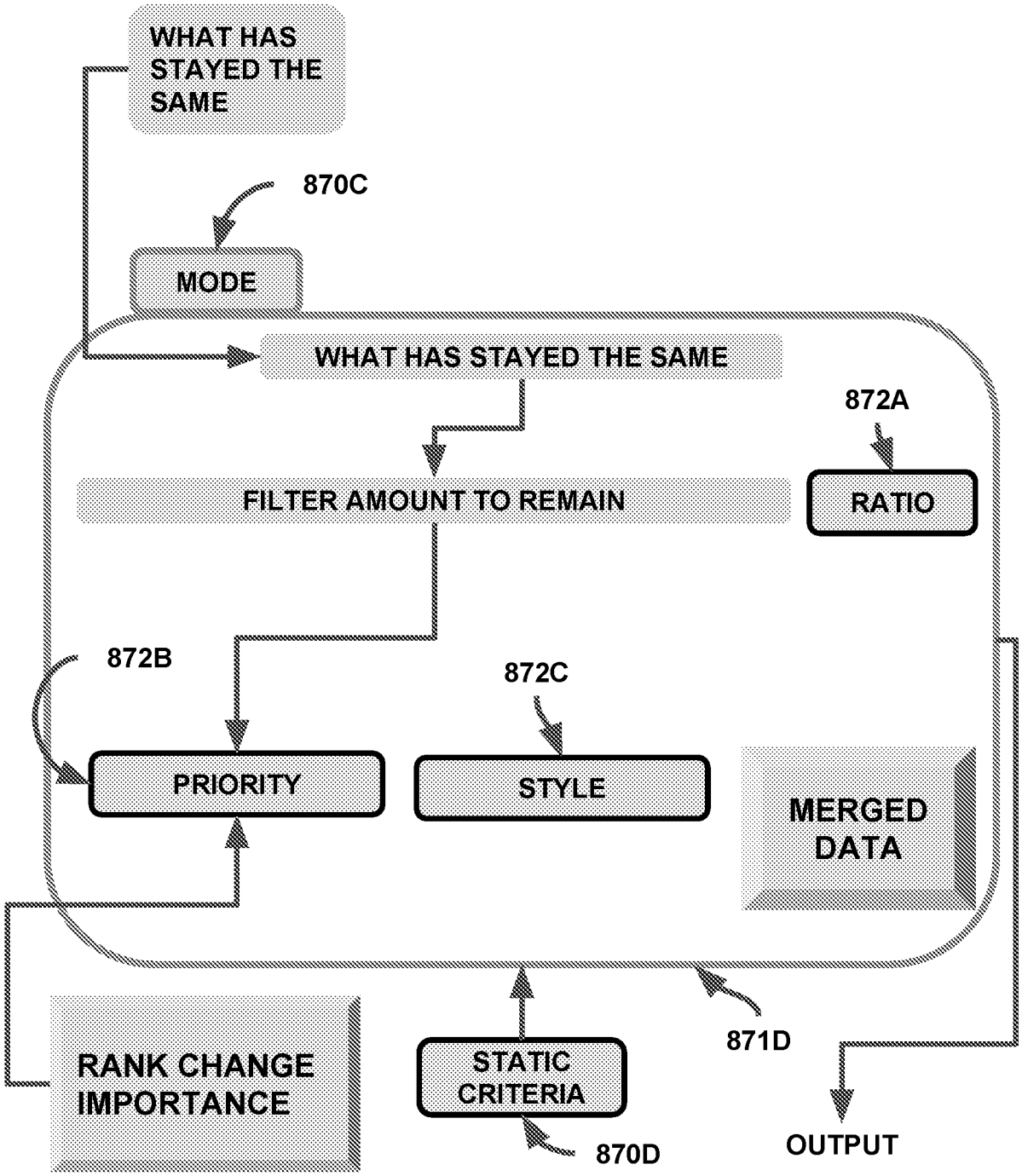

WHAT HAS STAYED THE SAME
870C
MODE
WHAT HAS STAYED THE SAME
872A
FILTER AMOUNT TO REMAIN
RATIO
872B
872C
PRIORITY
STYLE
MERGED DATA
RANK CHANGE IMPORTANCE
STATIC CRITERIA
871D
870D
OUTPUT

FIG. 153

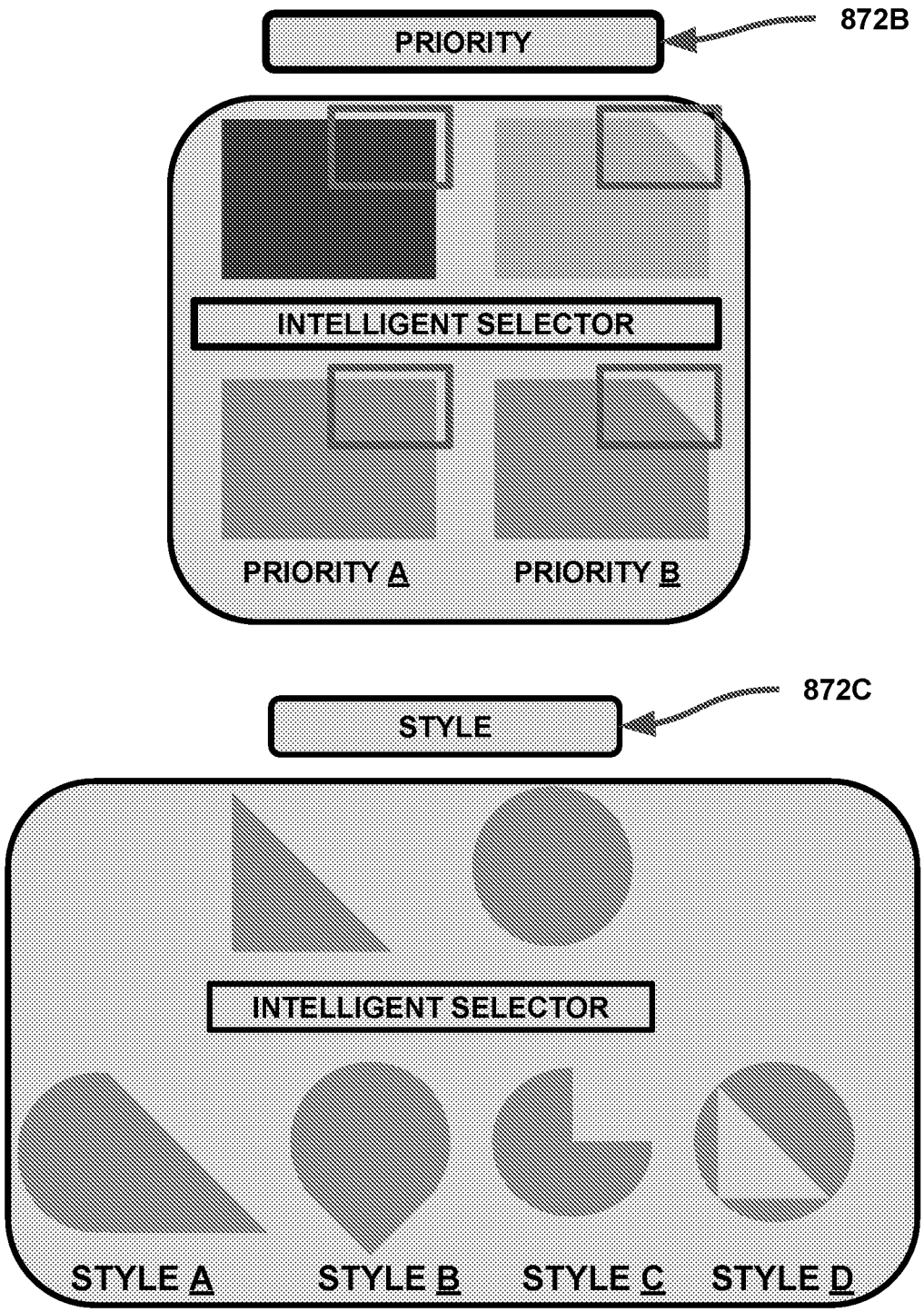

PRIORITY
872B
INTELLIGENT SELECTOR
PRIORITY A
PRIORITY B
STYLE
872C
INTELLIGENT SELECTOR
STYLE A
STYLE B
STYLE C
STYLE D

FIG. 154

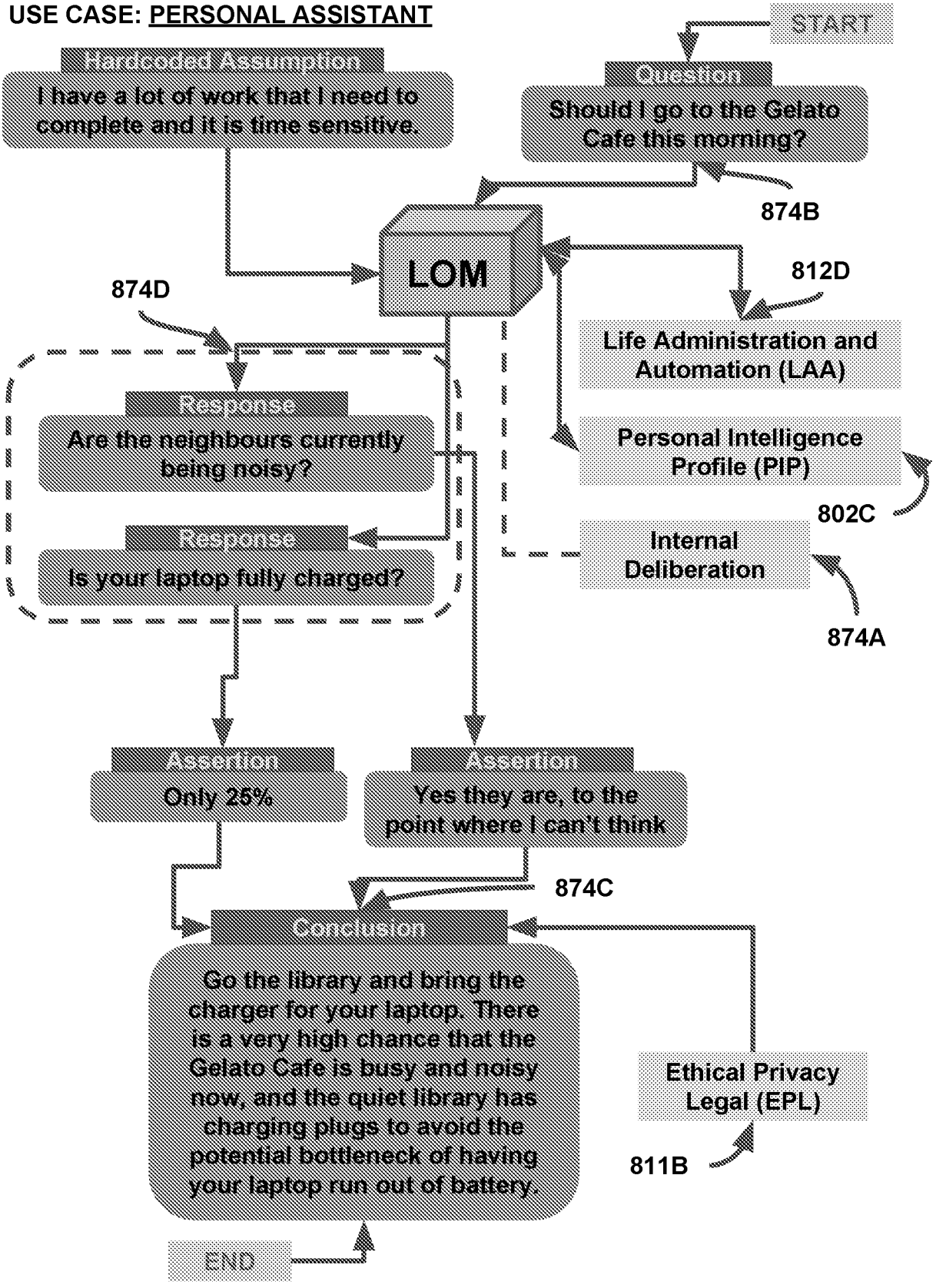

USE CASE: PERSONAL ASSISTANT
START
Hardcoded Assumption
I have a lot of work that I need to complete and it is time sensitive.
Question
Should I go to the Gelato Cafe this morning?
874B
LOM
812D
874D
Life Administration and Automation (LAA)
Response
Are the neighbours currently being noisy?
Personal Intelligence Profile (PIP)
802C
Response
Is your laptop fully charged?
Internal Deliberation
874A
Assertion
Only 25%
Assertion
Yes they are, to the point where I can't think
874C
Conclusion
Go the library and bring the charger for your laptop. There is a very high chance that the Gelato Cafe is busy and noisy now, and the quiet library has charging plugs to avoid the potential bottleneck of having your laptop run out of battery.
Ethical Privacy Legal (EPL)
811B
END

FIG. 155

USE CASE: PERSONAL ASSISTANT

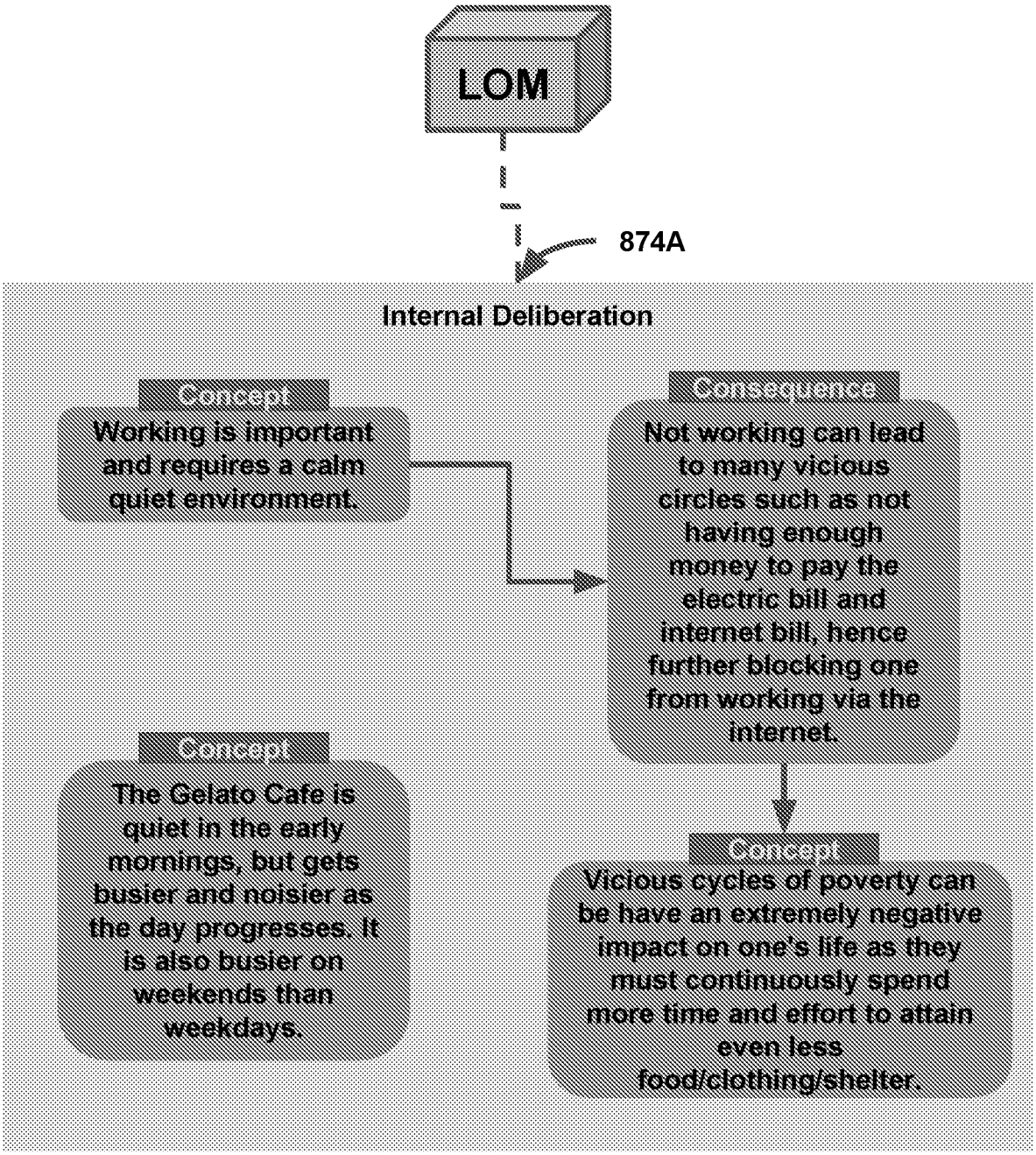


FIG. 156

USE CASE: RESEARCH TOOL

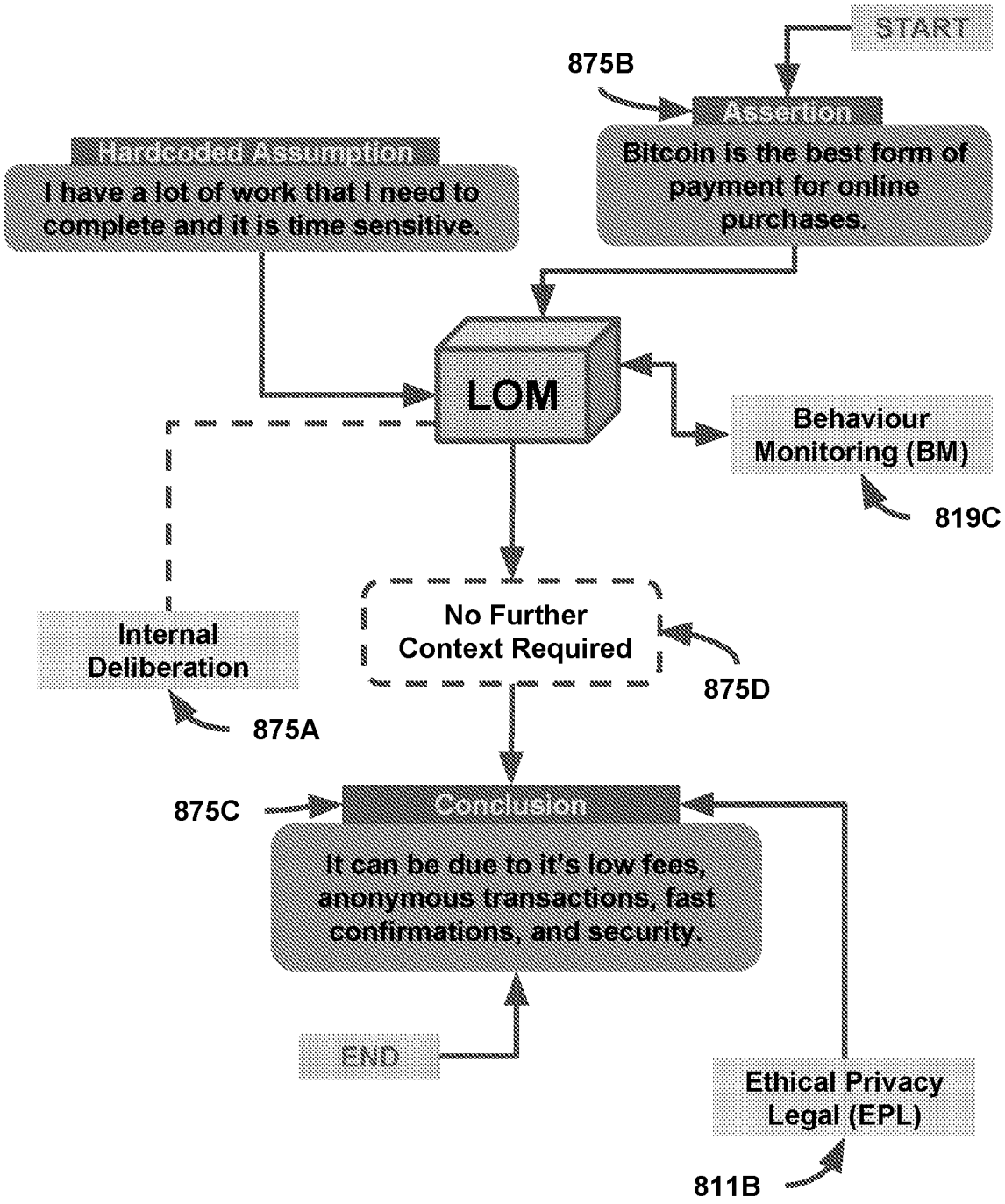


FIG. 157

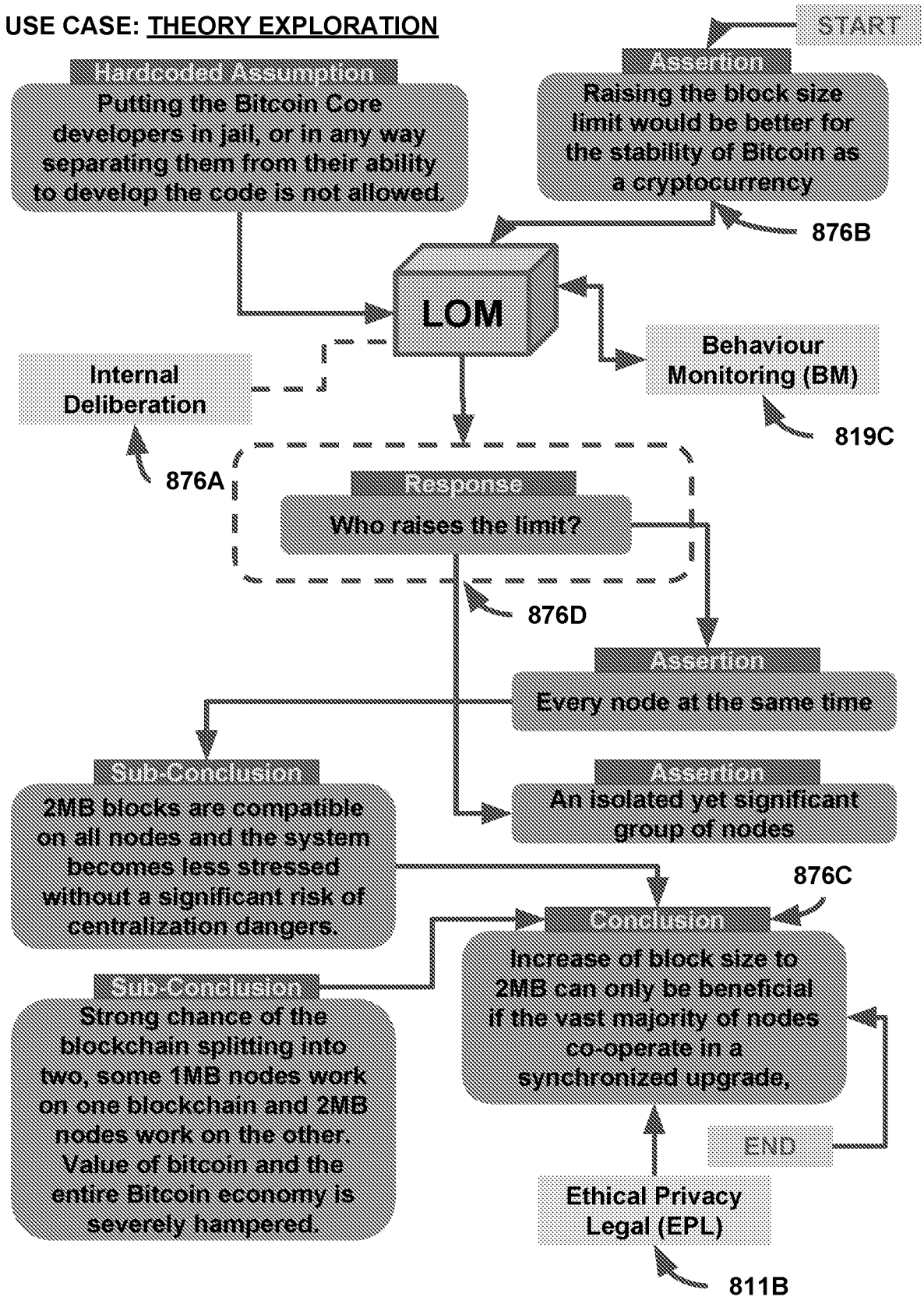

USE CASE: THEORY EXPLORATION
START
Assertion
Raising the block size limit would be better for the stability of Bitcoin as a cryptocurrency
876B
Hardcoded Assumption
Putting the Bitcoin Core developers in jail, or in any way separating them from their ability to develop the code is not allowed.
LOM
Behaviour Monitoring (BM)
819C
Internal Deliberation
876A
Response
Who raises the limit?
876D
Assertion
Every node at the same time
Sub-Conclusion
2MB blocks are compatible on all nodes and the system becomes less stressed without a significant risk of centralization dangers.
Assertion
An isolated yet significant group of nodes
876C
Conclusion
Increase of block size to 2MB can only be beneficial if the vast majority of nodes co-operate in a synchronized upgrade,
Sub-Conclusion
Strong chance of the blockchain splitting into two, some 1MB nodes work on one blockchain and 2MB nodes work on the other. Value of bitcoin and the entire Bitcoin economy is severely hampered.
END
Ethical Privacy Legal (EPL)
811B

FIG. 158

USE CASE: THEORY EXPLORATION

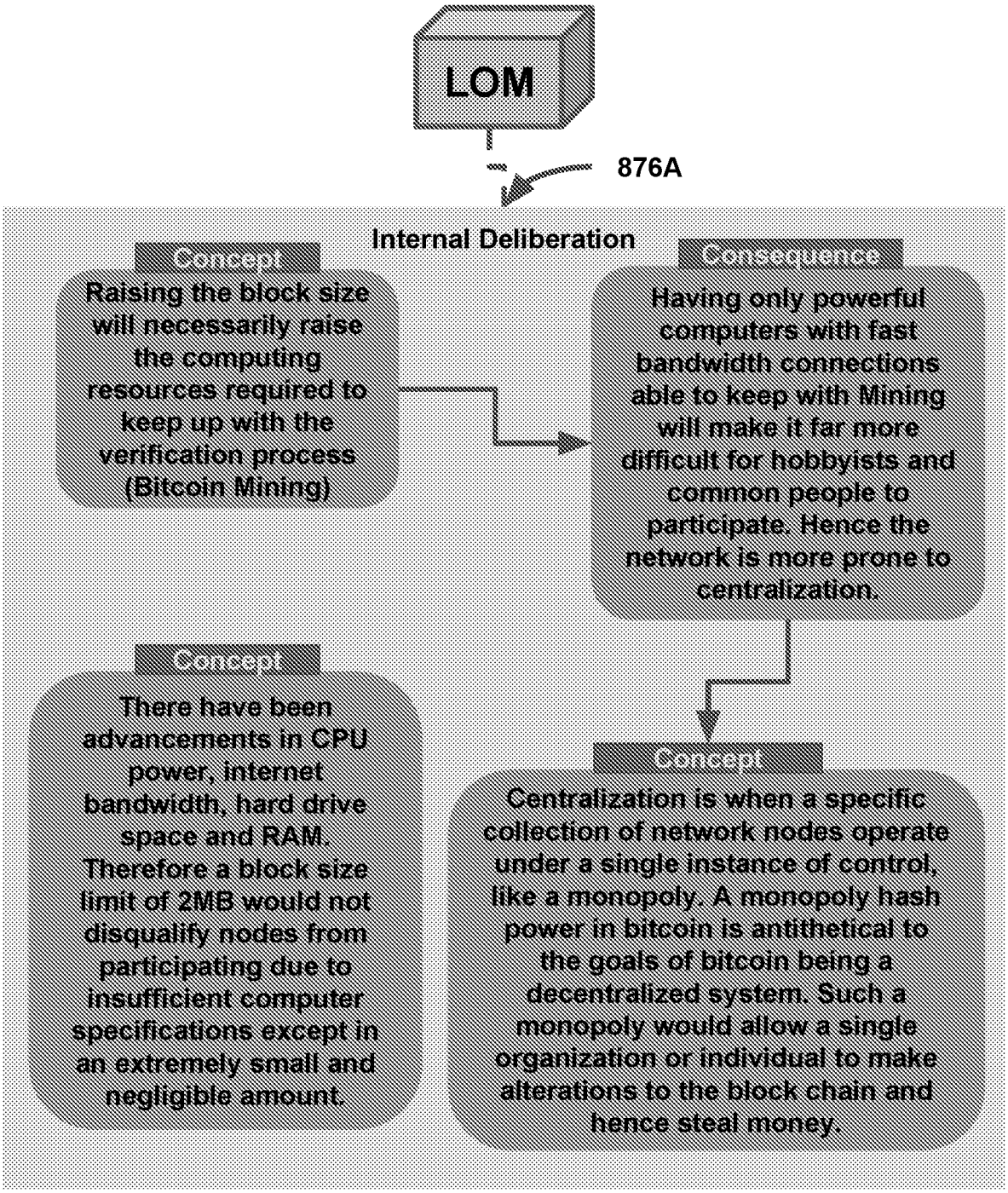


FIG. 159

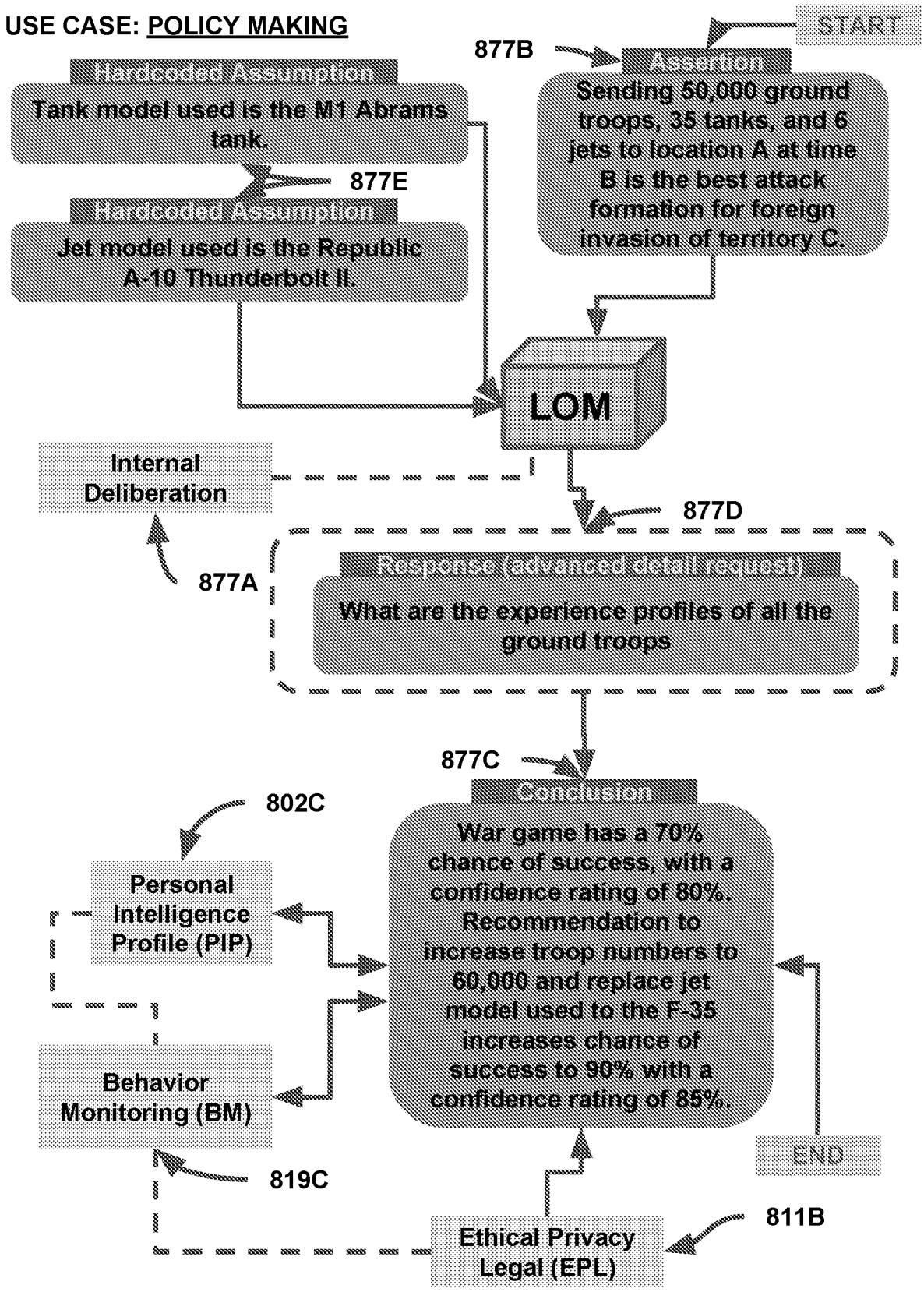

USE CASE: POLICY MAKING
START
877B
Assertion
Sending 50,000 ground troops, 35 tanks, and 6 jets to location A at time B is the best attack formation for foreign invasion of territory C.
Hardcoded Assumption
Tank model used is the M1 Abrams tank.
877E
Hardcoded Assumption
Jet model used is the Republic A-10 Thunderbolt II.
LOM
Internal Deliberation
877D
877A
Response (advanced detail request)
What are the experience profiles of all the ground troops
877C
Conclusion
802C
War game has a 70% chance of success, with a confidence rating of 80%. Recommendation to increase troop numbers to 60,000 and replace jet model used to the F-35 increases chance of success to 90% with a confidence rating of 85%.
Personal Intelligence Profile (PIP)
Behavior Monitoring (BM)
819C
END
811B
Ethical Privacy Legal (EPL)

FIG. 160

USE CASE: POLICY MAKING

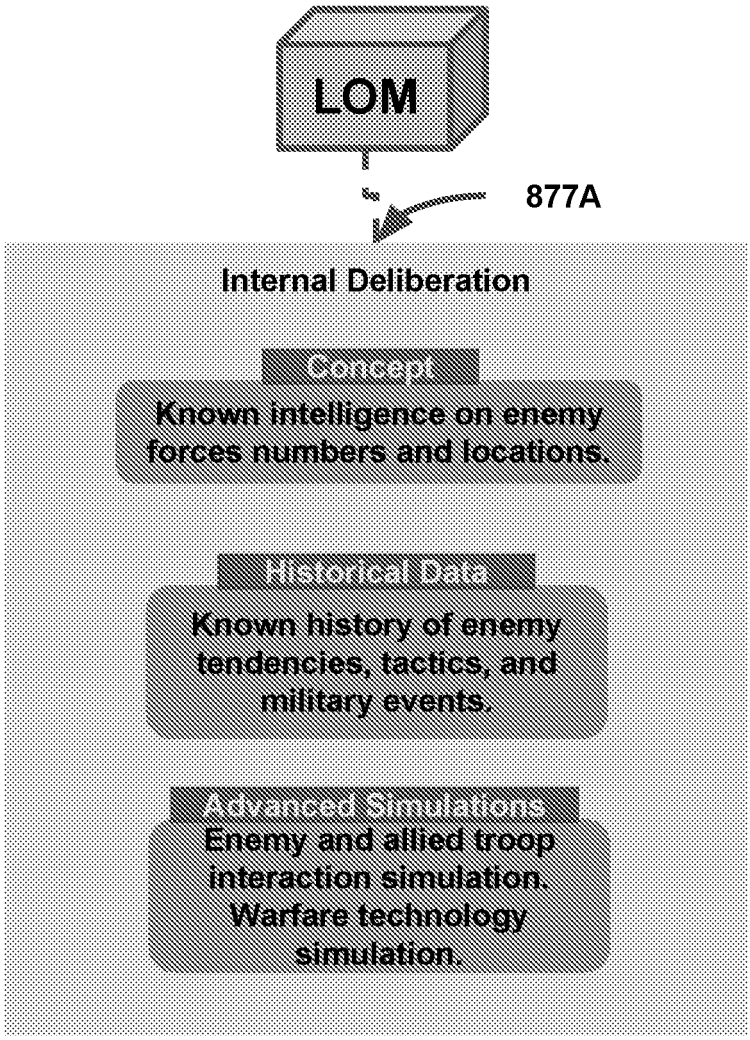


FIG. 161

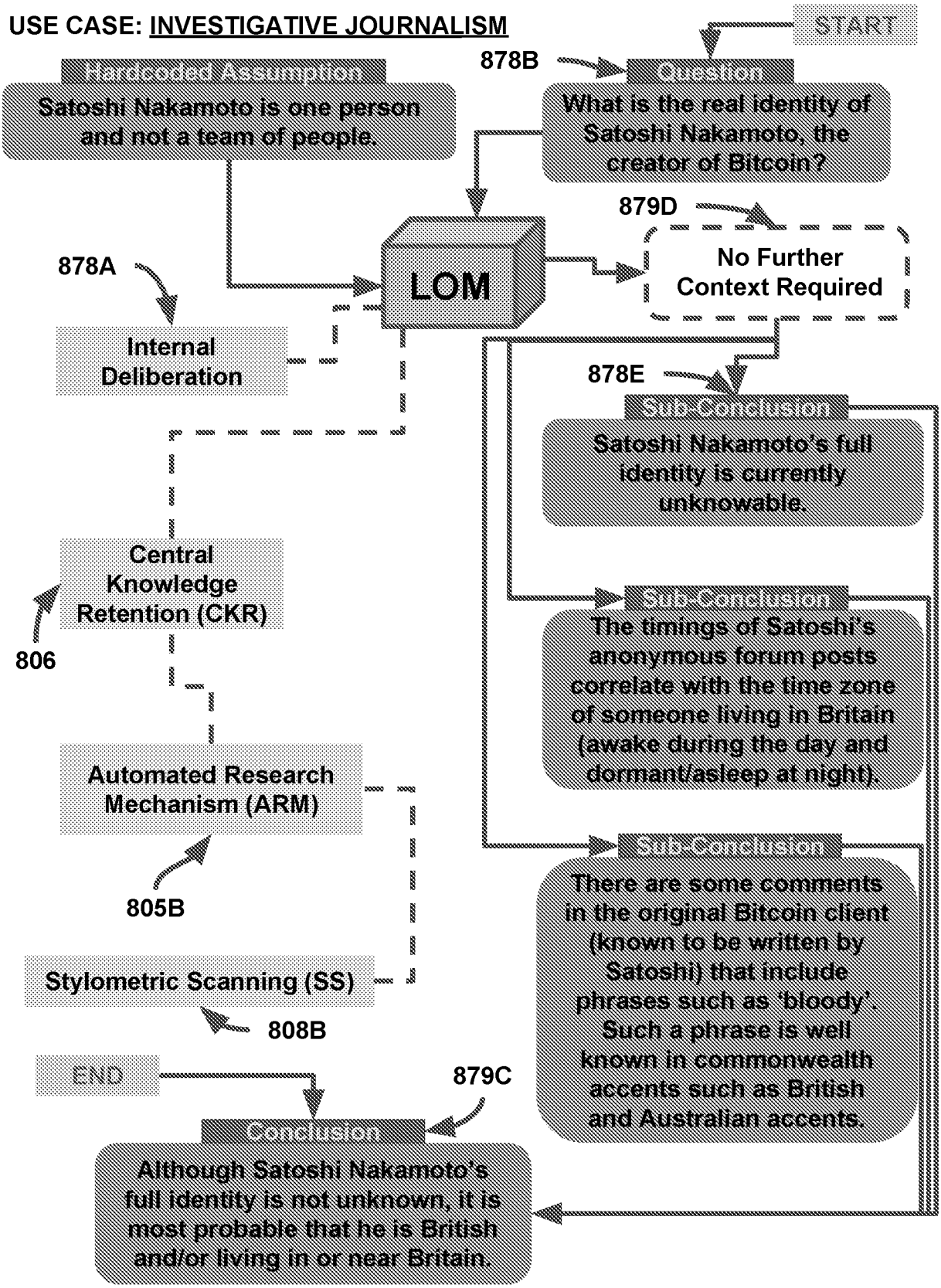

USE CASE: INVESTIGATIVE JOURNALISM
START
878B
Question
What is the real identity of Satoshi Nakamoto, the creator of Bitcoin?
Hardcoded Assumption
Satoshi Nakamoto is one person and not a team of people.
879D
No Further Context Required
878A
LOM
Internal Deliberation
878E
Sub-Conclusion
Satoshi Nakamoto's full identity is currently unknowable.
Central Knowledge Retention (CKR)
806
Sub-Conclusion
The timings of Satoshi's anonymous forum posts correlate with the time zone of someone living in Britain (awake during the day and dormant/asleep at night).
Automated Research Mechanism (ARM)
805B
Sub-Conclusion
There are some comments in the original Bitcoin client (known to be written by Satoshi) that include phrases such as 'bloody'. Such a phrase is well known in commonwealth accents such as British and Australian accents.
Stylometric Scanning (SS)
808B
END
879C
Conclusion
Although Satoshi Nakamoto's full identity is not unknown, it is most probable that he is British and/or living in or near Britain.

FIG. 162

USE CASE: INVESTIGATIVE JOURNALISM

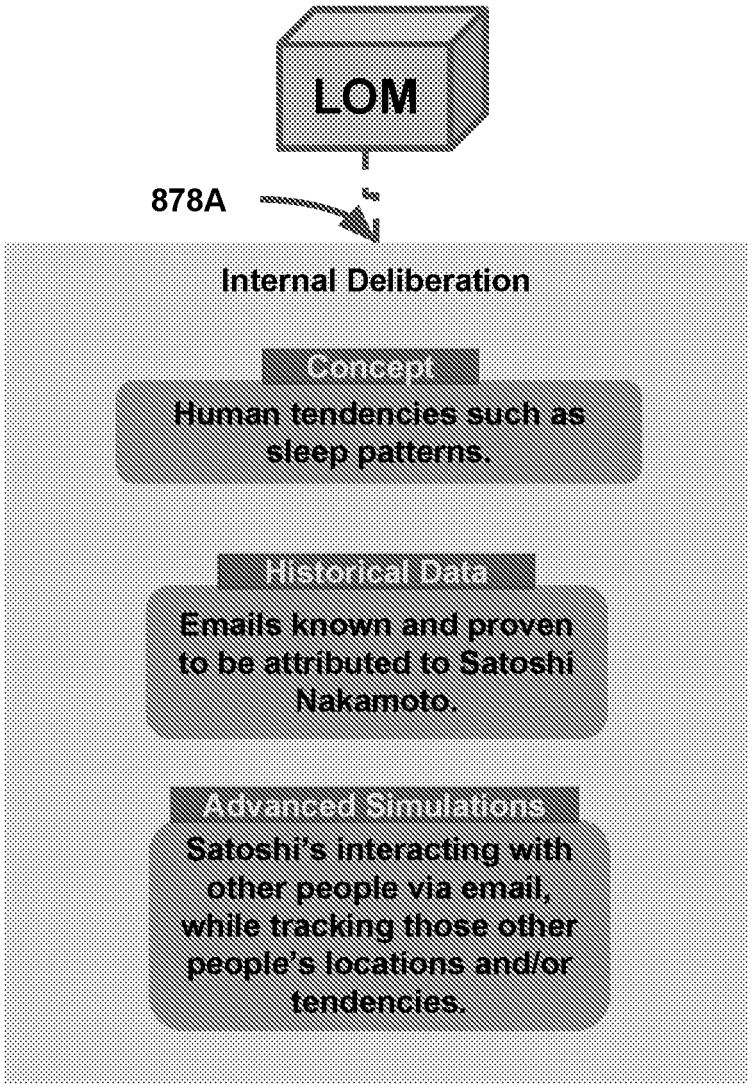


FIG. 163

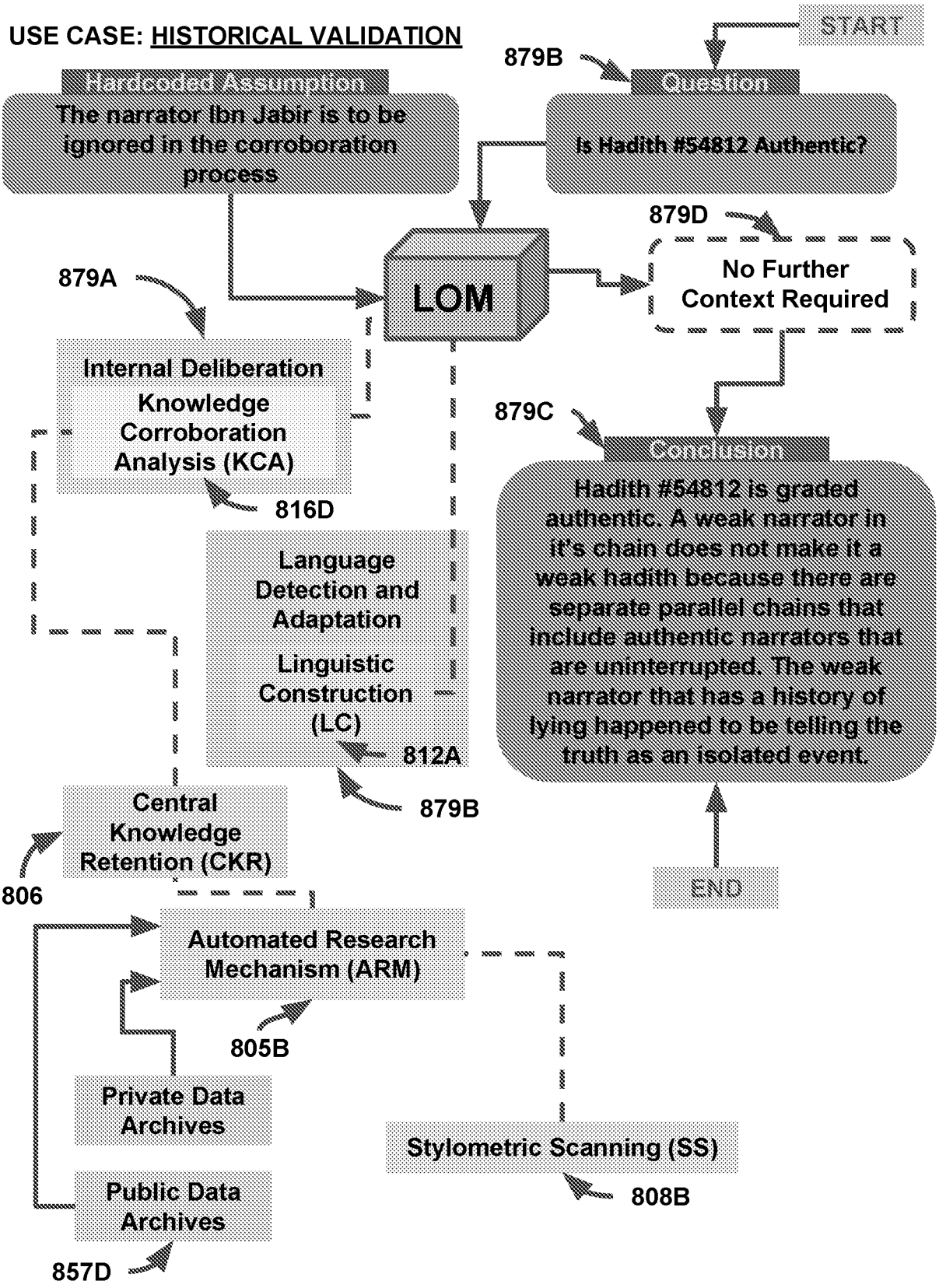

USE CASE: HISTORICAL VALIDATION
START
879B
Question
Is Hadith #54812 Authentic?
Hardcoded Assumption
The narrator Ibn Jabir is to be ignored in the corroboration process
879D
No Further Context Required
879A
LOM
Internal Deliberation
Knowledge Corroboration Analysis (KCA)
816D
879C
Conclusion
Hadith #54812 is graded authentic. A weak narrator in it's chain does not make it a weak hadith because there are separate parallel chains that include authentic narrators that are uninterrupted. The weak narrator that has a history of lying happened to be telling the truth as an isolated event.
Language Detection and Adaptation
Linguistic Construction (LC)
812A
879B
Central Knowledge Retention (CKR)
806
END
Automated Research Mechanism (ARM)
805B
Private Data Archives
Stylometric Scanning (SS)
808B
Public Data Archives
857D

FIG. 164

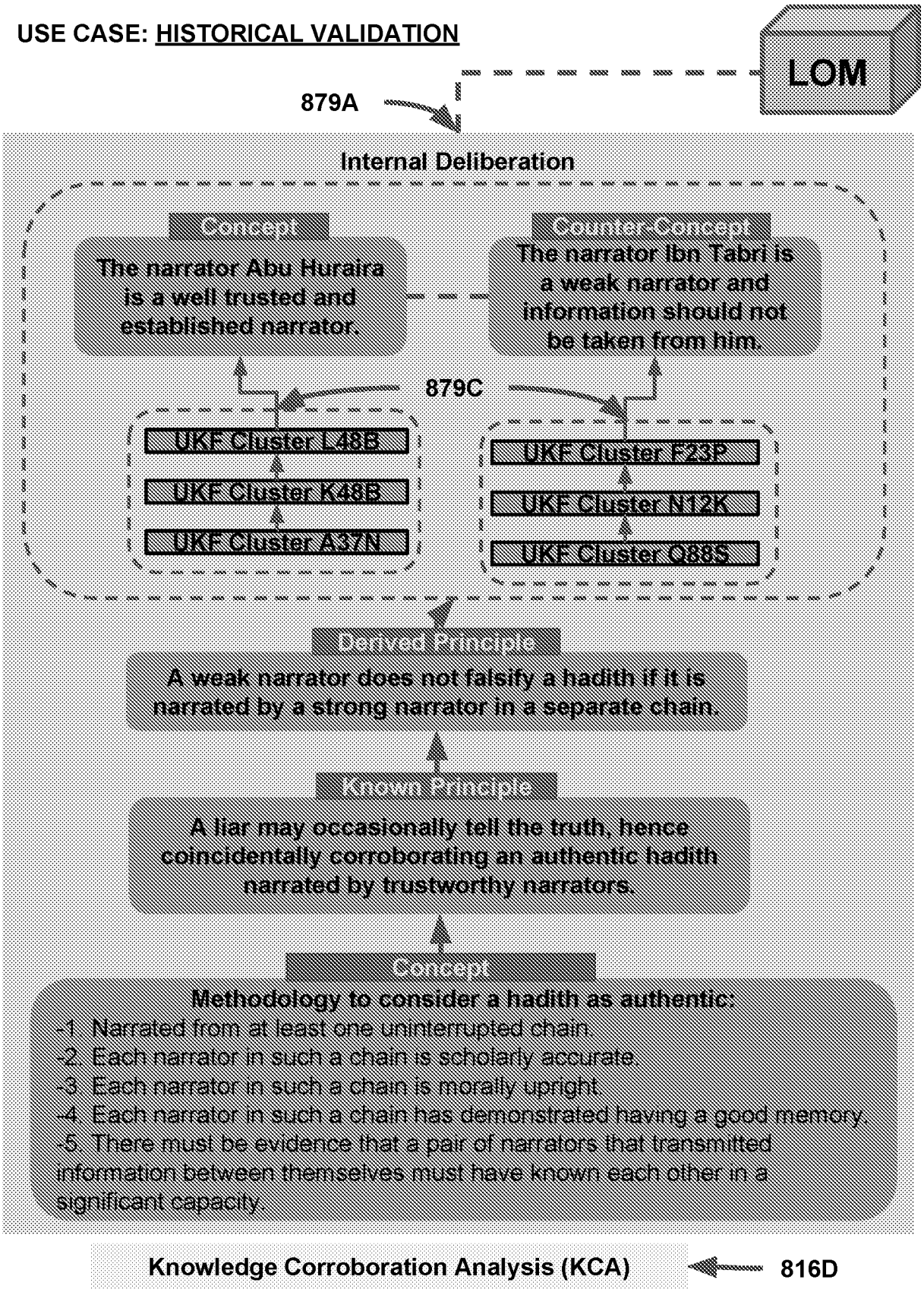

USE CASE: HISTORICAL VALIDATION
LOM
879A
Internal Deliberation
Concept
The narrator Abu Huraira is a well trusted and established narrator.
Counter-Concept
The narrator Ibn Tabri is a weak narrator and information should not be taken from him.
879C
UKF Cluster L48B
UKF Cluster K48B
UKF Cluster A37N
UKF Cluster F23P
UKF Cluster N12K
UKF Cluster Q88S
Derived Principle
A weak narrator does not falsify a hadith if it is narrated by a strong narrator in a separate chain.
Known Principle
A liar may occasionally tell the truth, hence coincidentally corroborating an authentic hadith narrated by trustworthy narrators.
Concept
Methodology to consider a hadith as authentic:
-1. Narrated from at least one uninterrupted chain.
-2. Each narrator in such a chain is scholarly accurate.
-3. Each narrator in such a chain is morally upright.
-4. Each narrator in such a chain has demonstrated having a good memory.
-5. There must be evidence that a pair of narrators that transmitted information between themselves must have known each other in a significant capacity.
Knowledge Corroboration Analysis (KCA)
816D

FIG. 165

LAQIT is a secure language for automated system to transfer information to humans. The methodology for interpreting LAQIT is primary via inter-positioned colored shapes. The correlation of shape, color, and position indicate a certain translation to the latin alphabet. Hence the reference of color is mandatory in comprehending information conveyed over LAQIT.

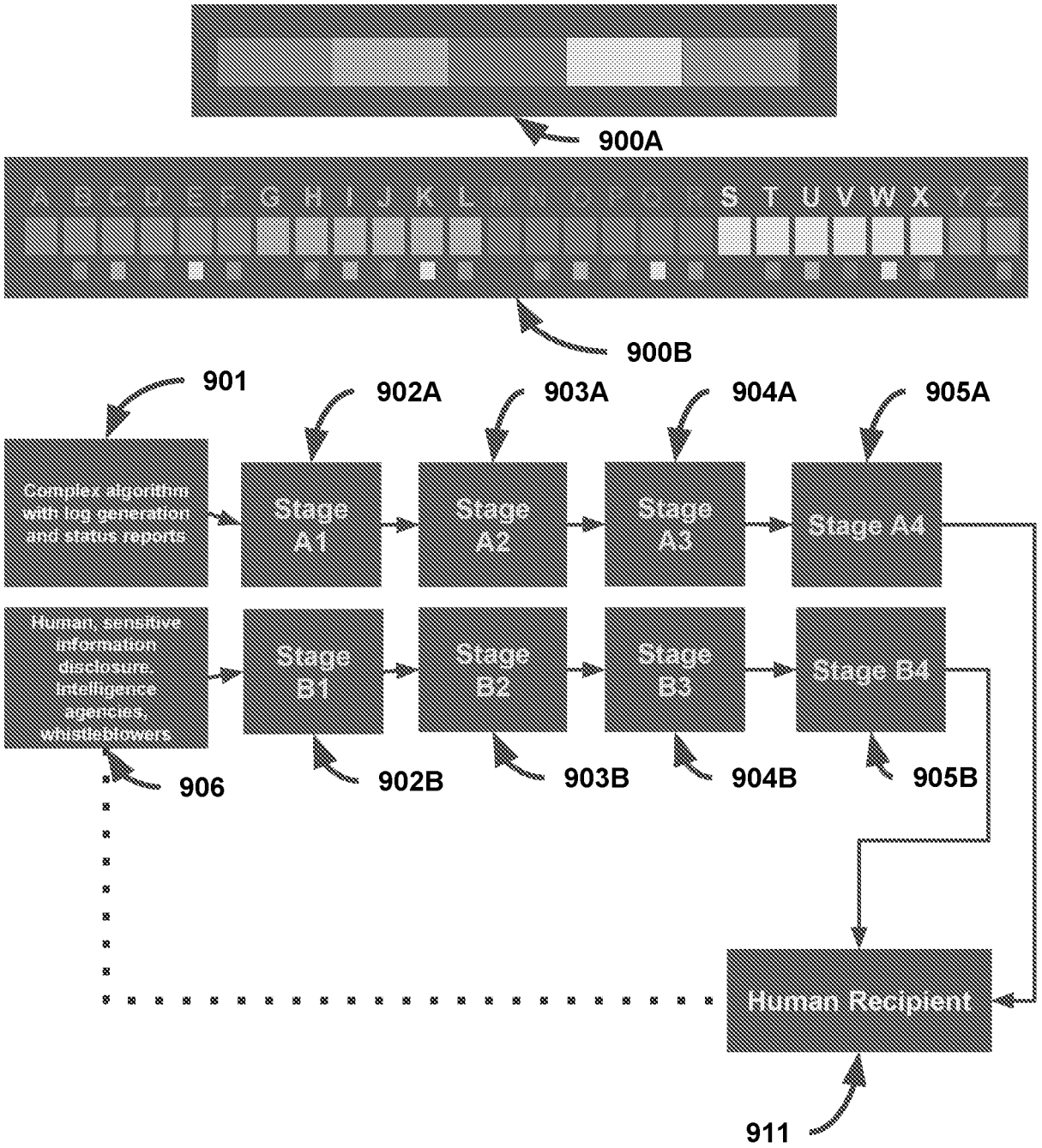


FIG. 166

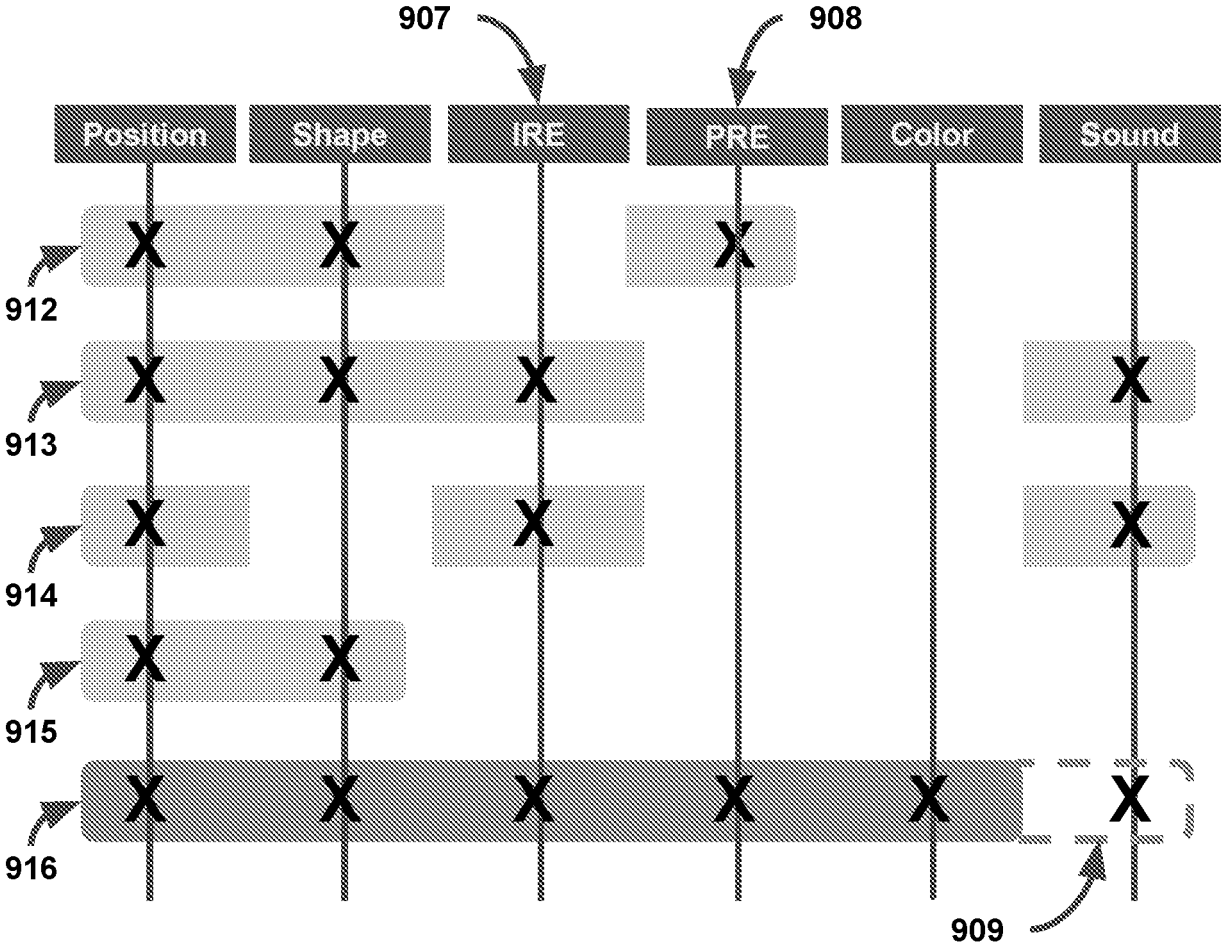

907
908
Position
Shape
IRE
PRE
Color
Sound
912
913
914
915
916
909

FIG. 167

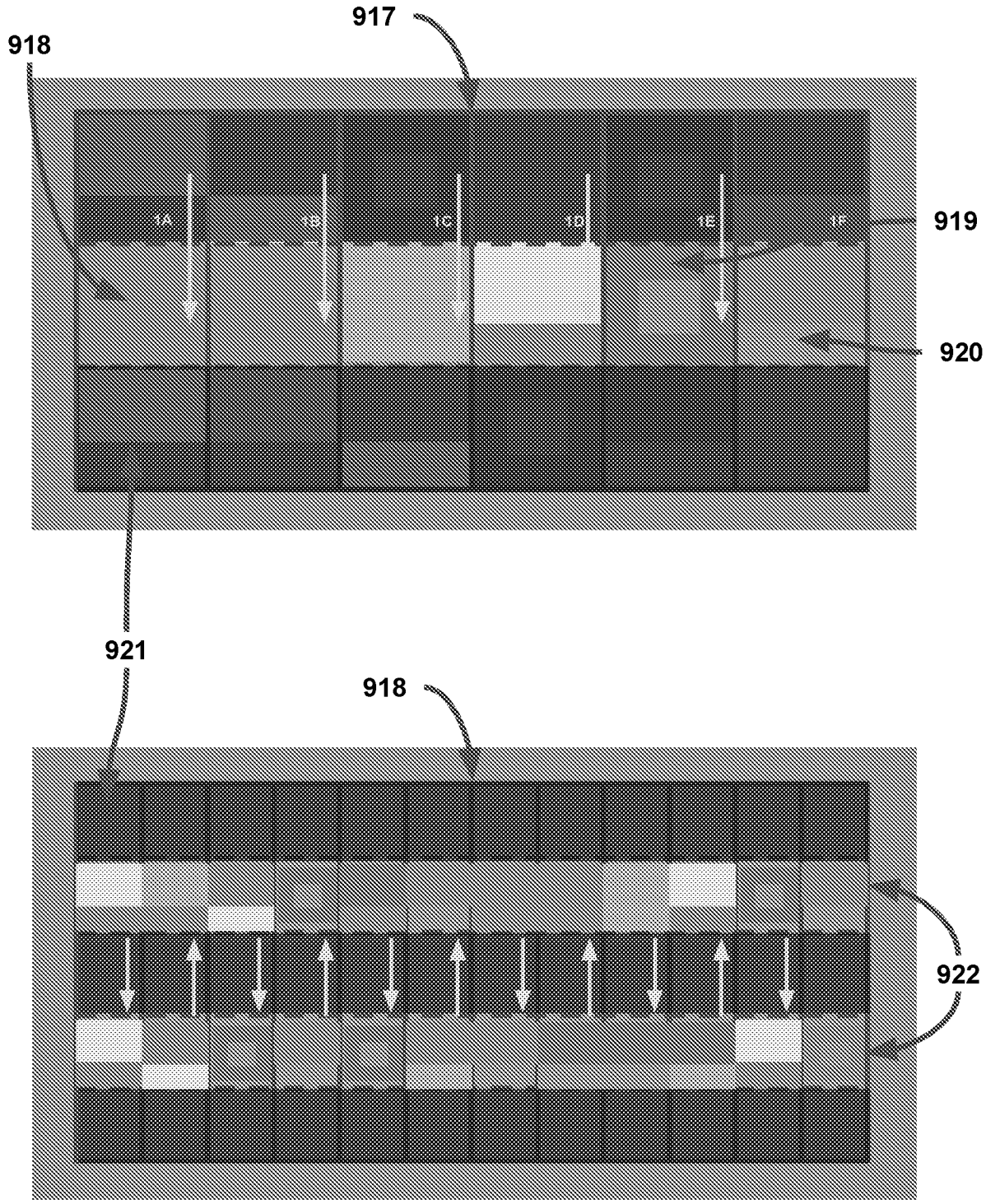


FIG. 168

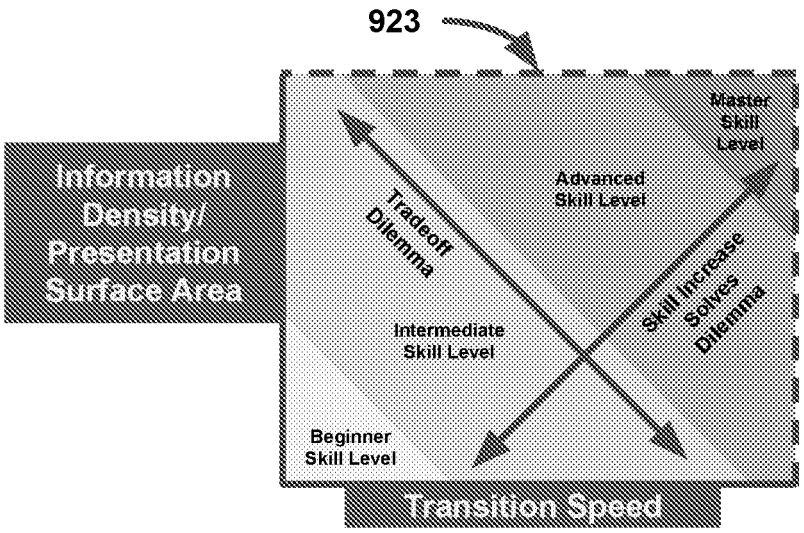

923
Information Density/ Presentation Surface Area
Master Skill Level
Advanced Skill Level
Tradeoff Dilemma
Skill Increase Solves Dilemma
Intermediate Skill Level
Beginner Skill Level
Transition Speed

FIG. 169

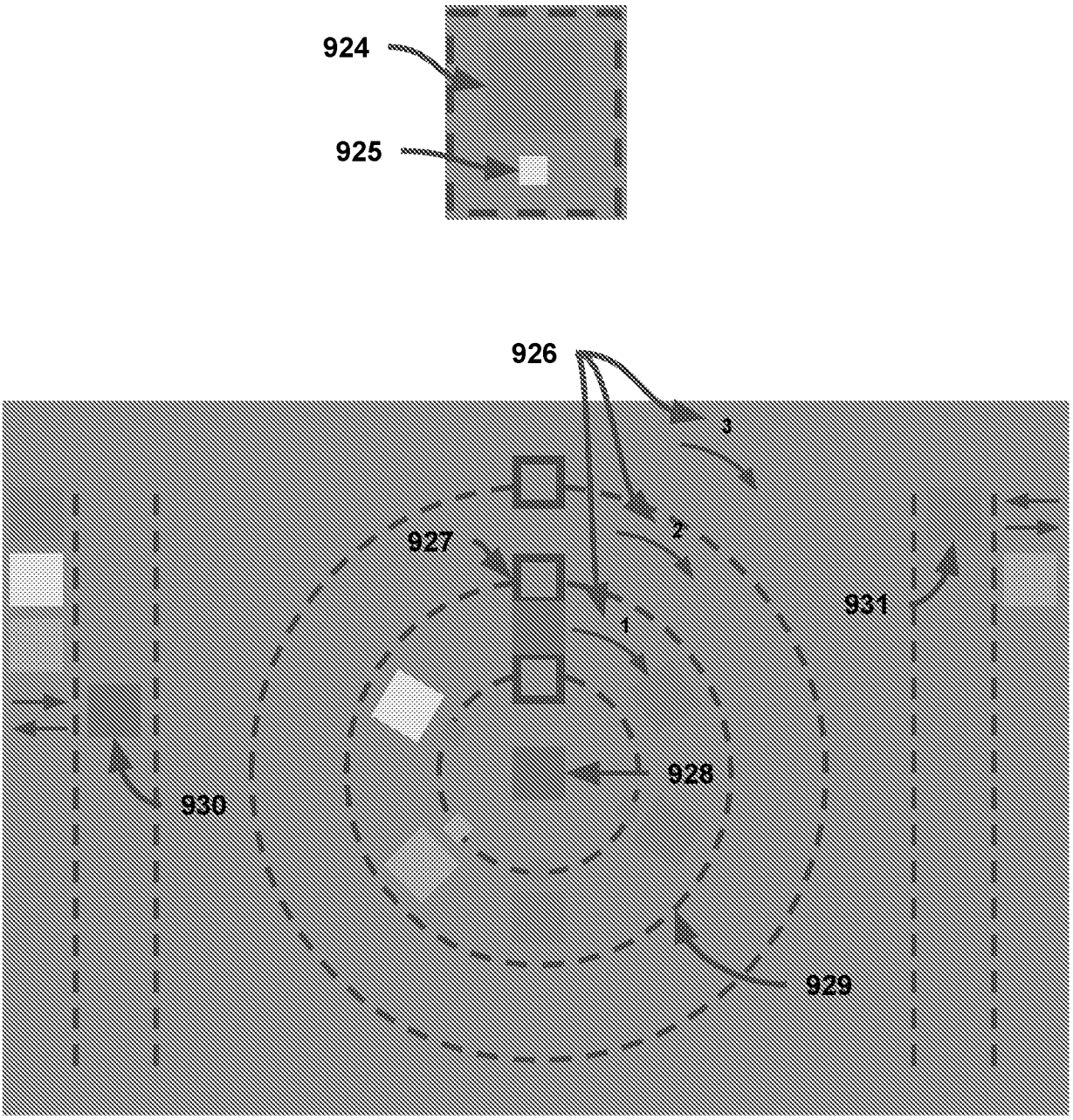


FIG. 170

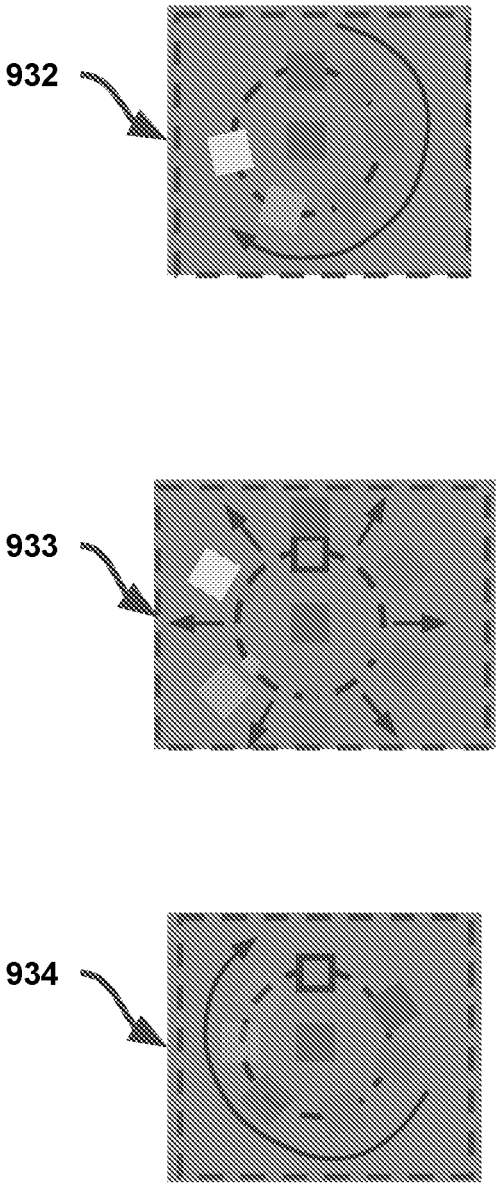


FIG. 171

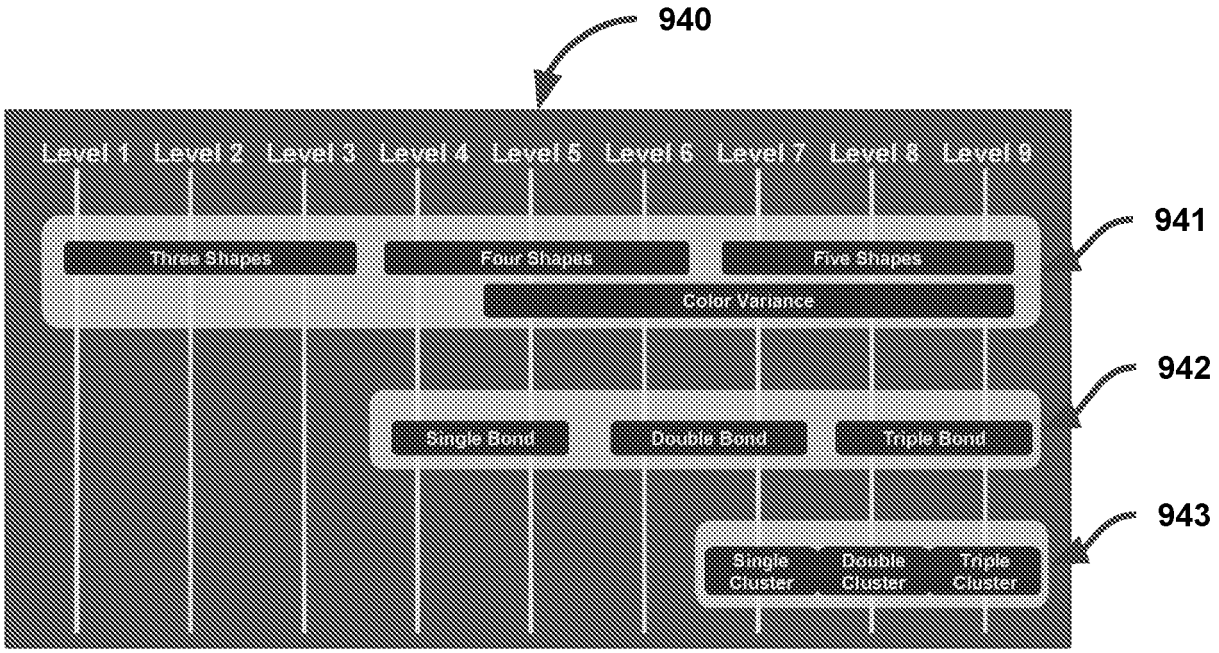

940
Level 1 Level 2 Level 3 Level 4 Level 5 Level 6 Level 7 Level 8 Level 9
Three Shapes
Four Shapes
Five Shapes
Color Variance
941
Single Bond
Double Bond
Triple Bond
942
Single Cluster
Double Cluster
Triple Cluster
943

FIG. 172

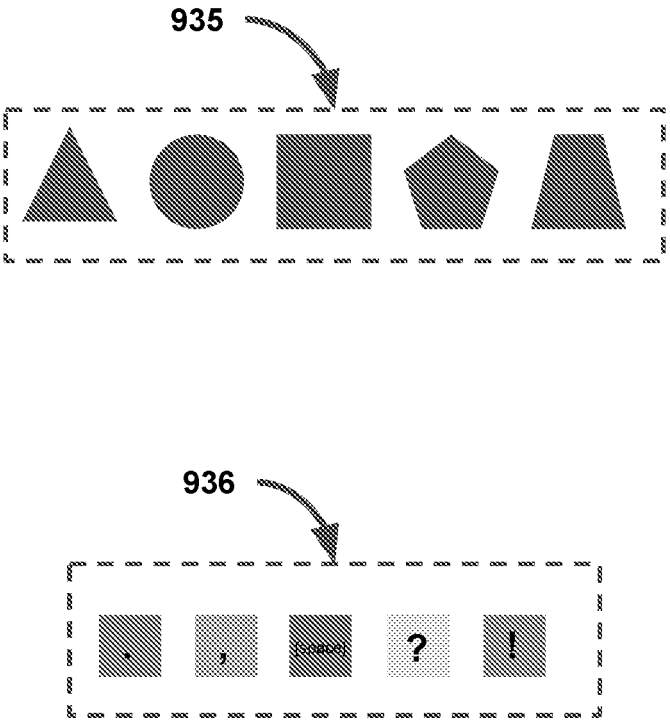


FIG. 173

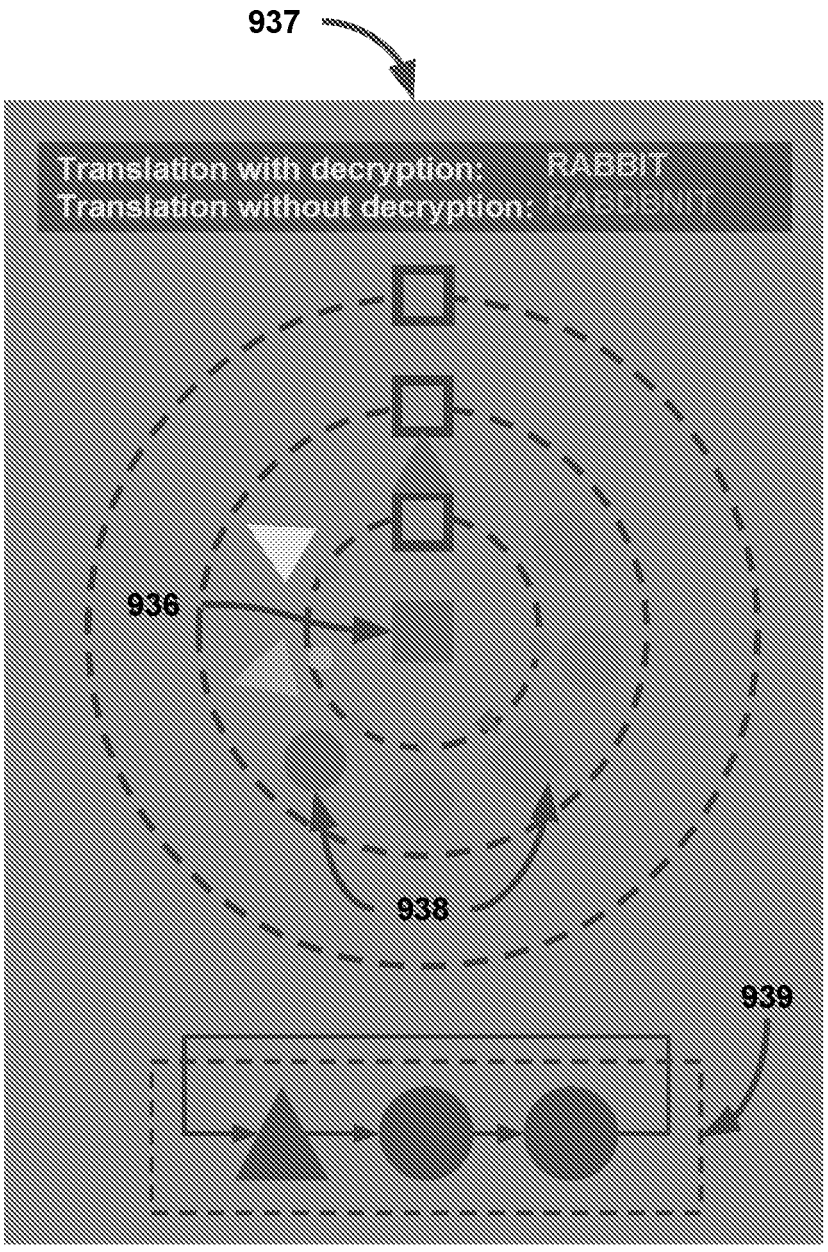

937
Translation with decryption: RABBIT
Translation without decryption:
936
938
939

FIG. 174

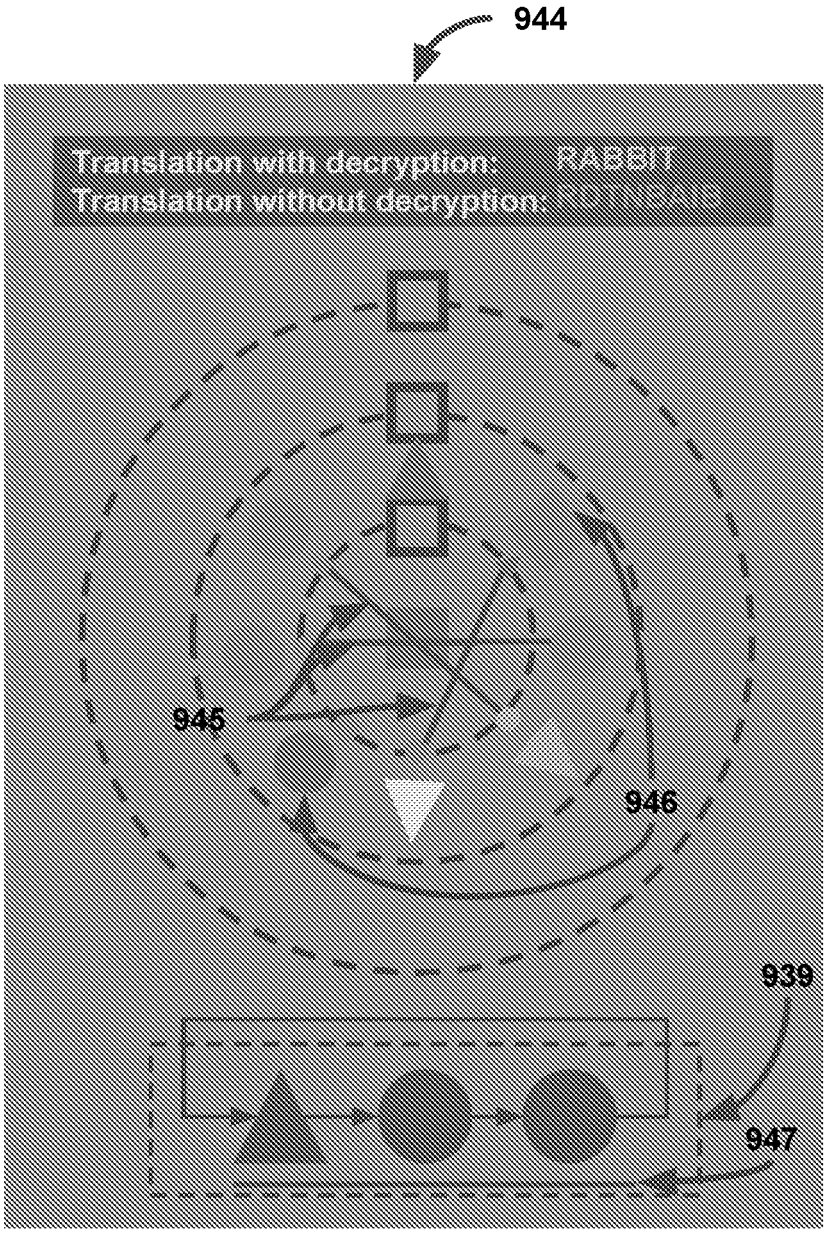

944
Translation with decryption: RABBIT
Translation without decryption:
945
946
939
947

FIG. 175

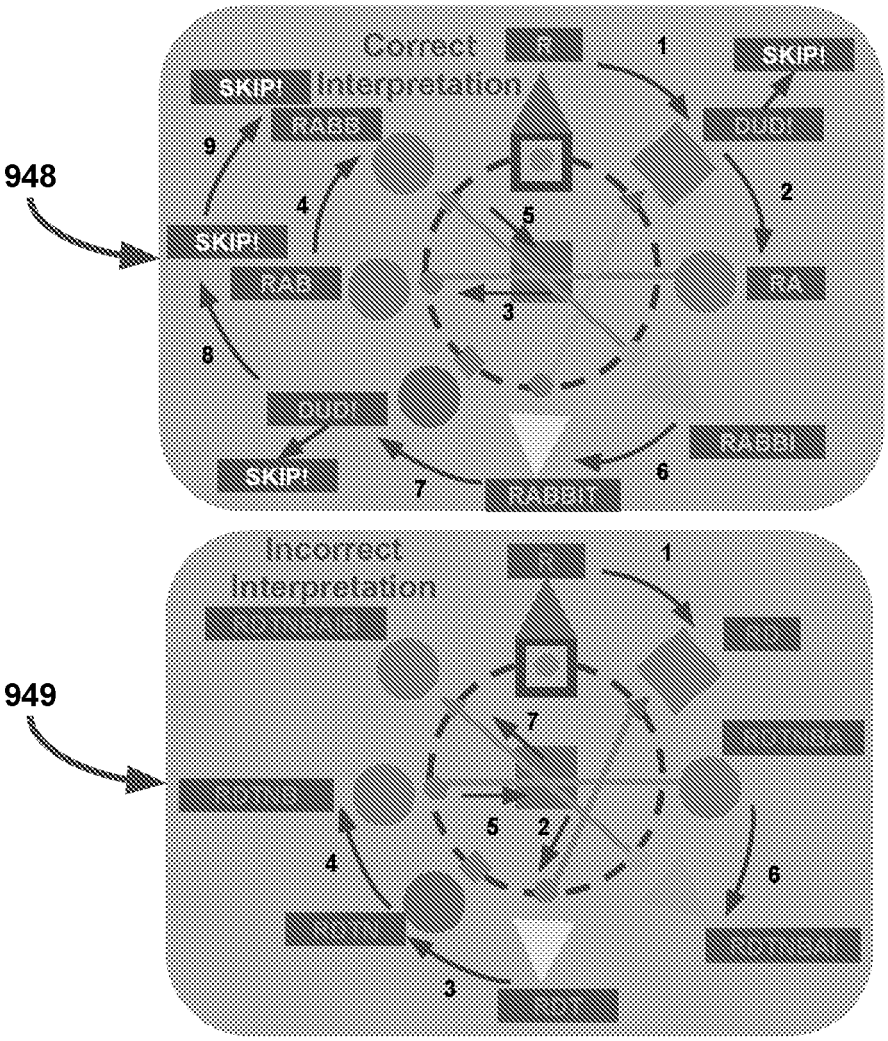

948
949
Correct Interpretation
Incorrect Interpretation
SKIP!
1
2
3
4
5
6
7
8
9

FIG. 176

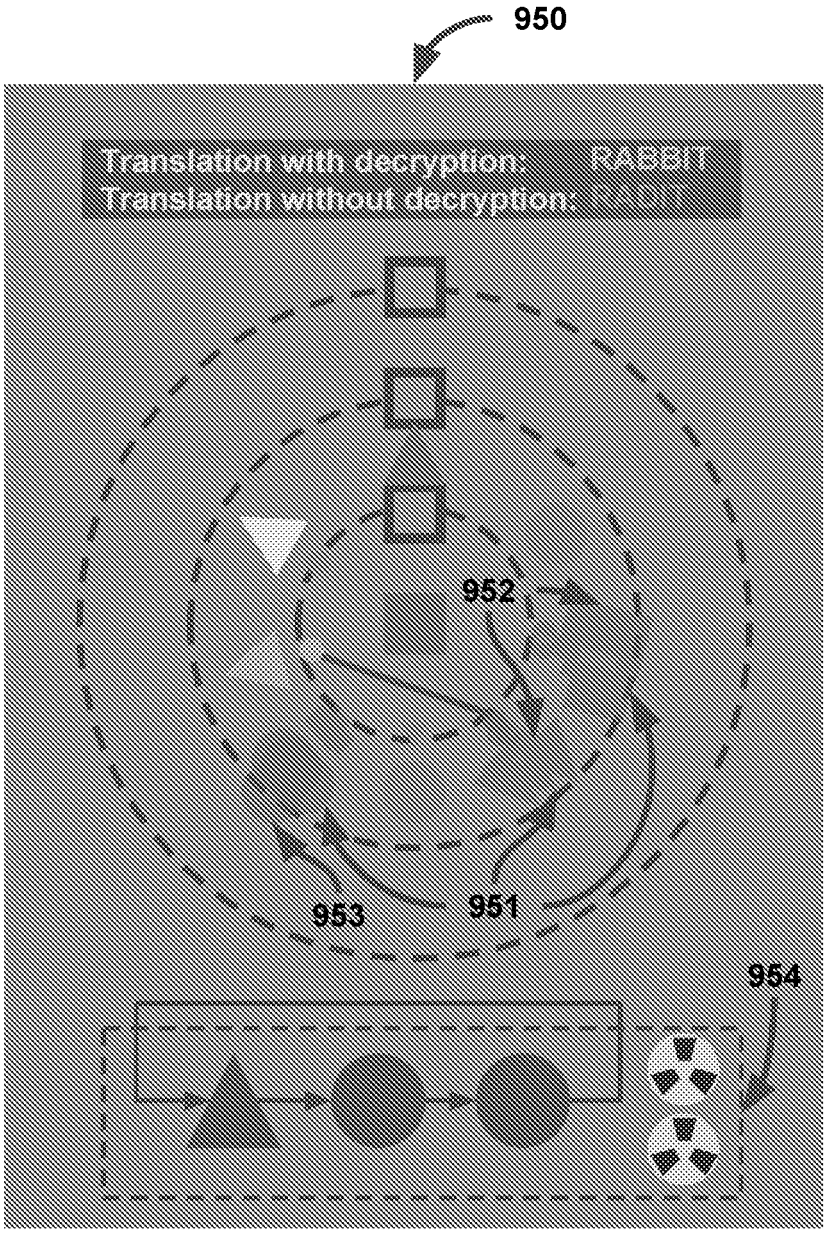

950
Translation with decryption: RABBIT
Translation without decryption:
952
953
951
954

FIG. 177

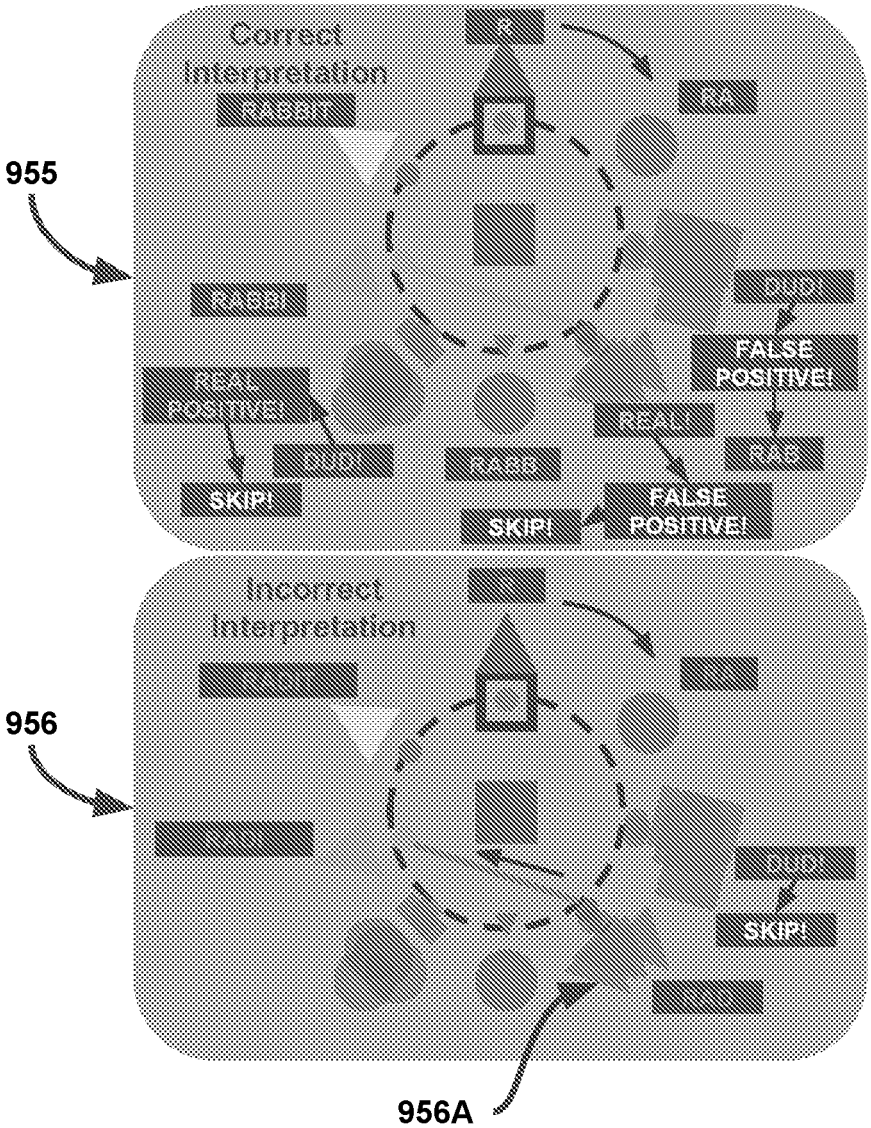

Correct Interpretation
FALSE POSITIVE!
SKIP!
SKIP!
FALSE POSITIVE!
Incorrect Interpretation
SKIP!
955
956
956A

FIG. 178

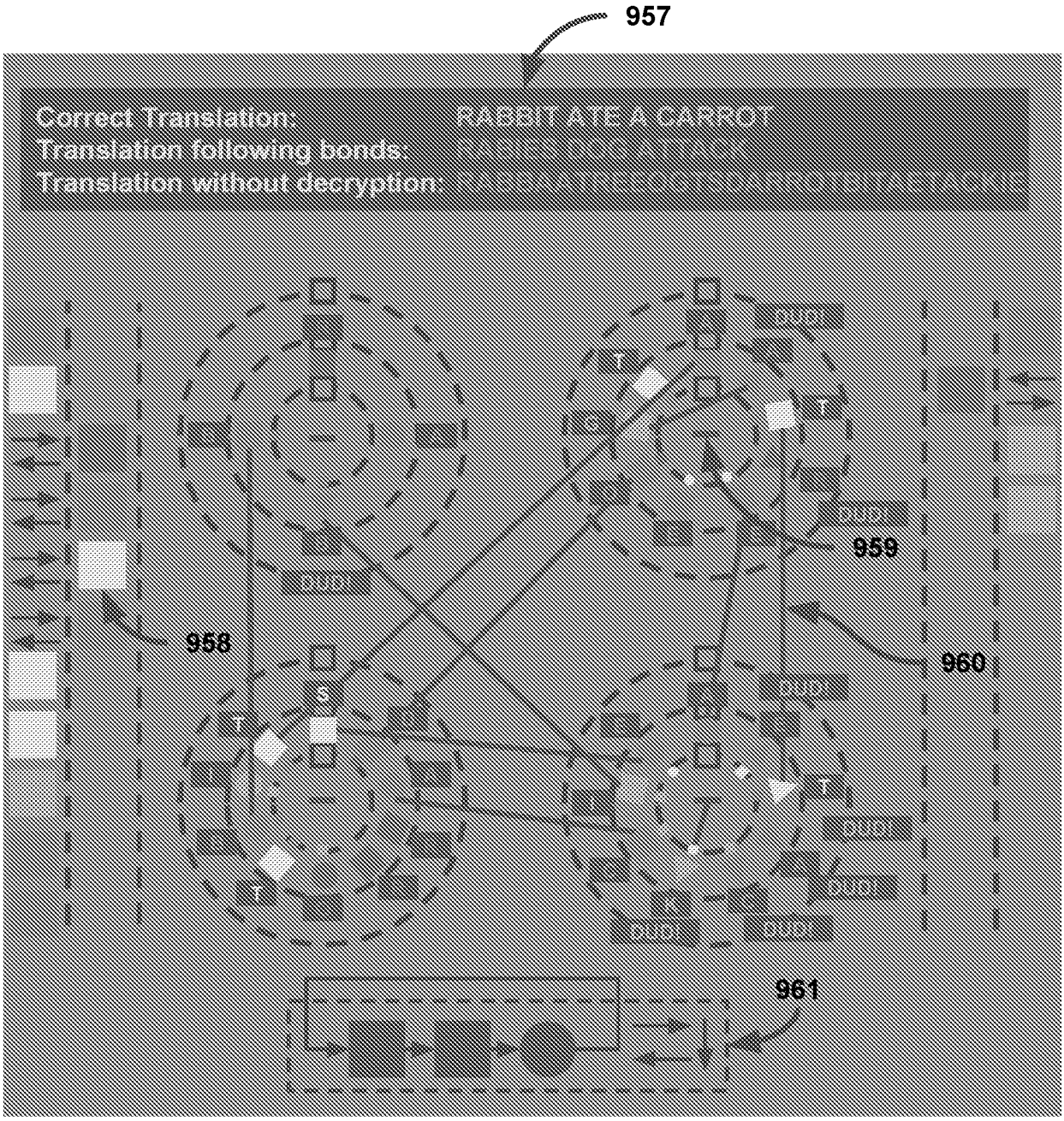

957
Correct Translation:
RABBIT ATE A CARROT
Translation following bonds:
Translation without decryption:
958
959
960
961

FIG. 179

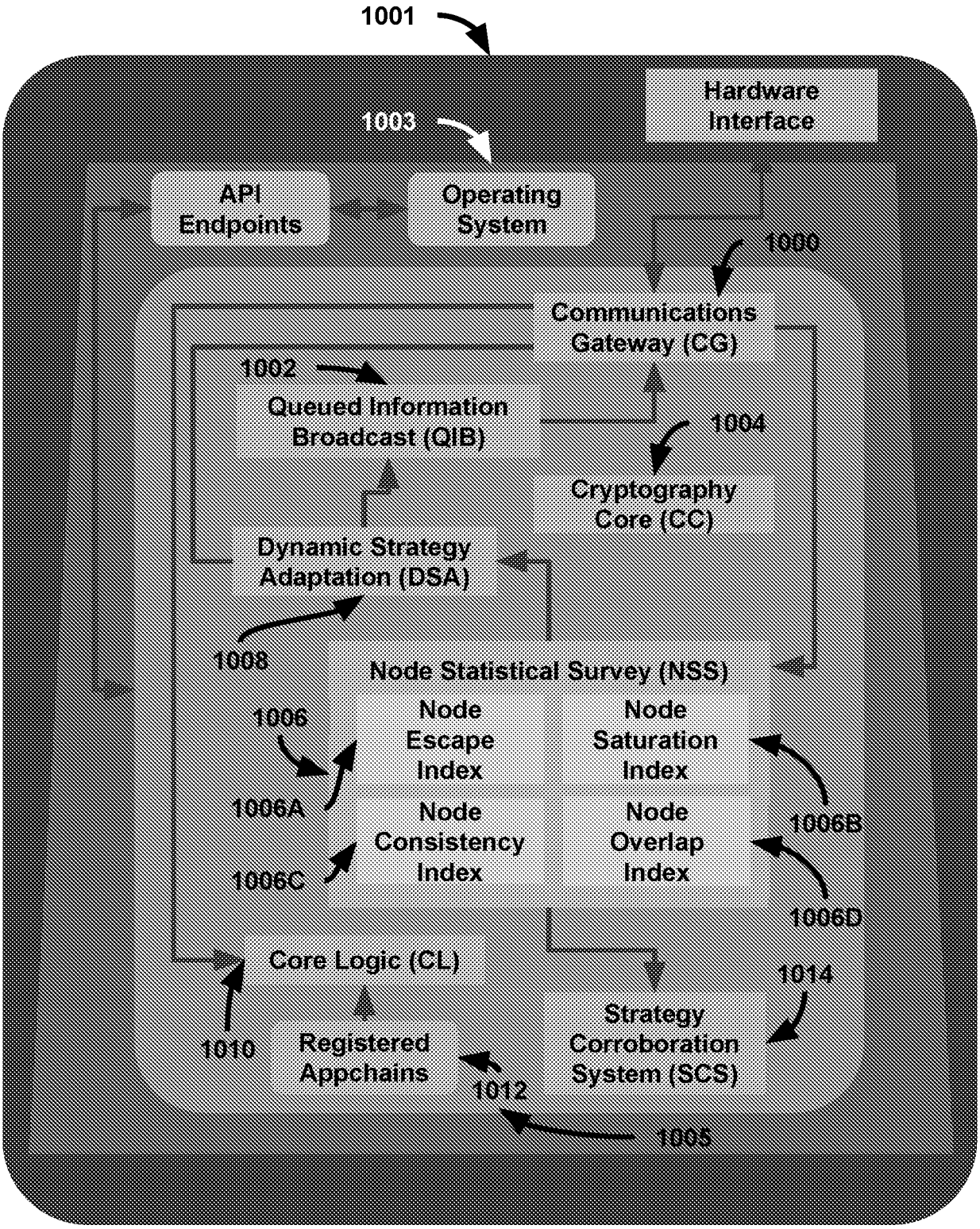

1001
Hardware Interface
1003
API Endpoints
Operating System
1000
Communications Gateway (CG)
1002
Queued Information Broadcast (QIB)
1004
Cryptography Core (CC)
Dynamic Strategy Adaptation (DSA)
1008
Node Statistical Survey (NSS)
1006
Node Escape Index
Node Saturation Index
1006A
1006B
Node Consistency Index
Node Overlap Index
1006C
1006D
Core Logic (CL)
1014
Strategy Corroboration System (SCS)
1010
Registered Appchains
1012
1005

FIG. 180

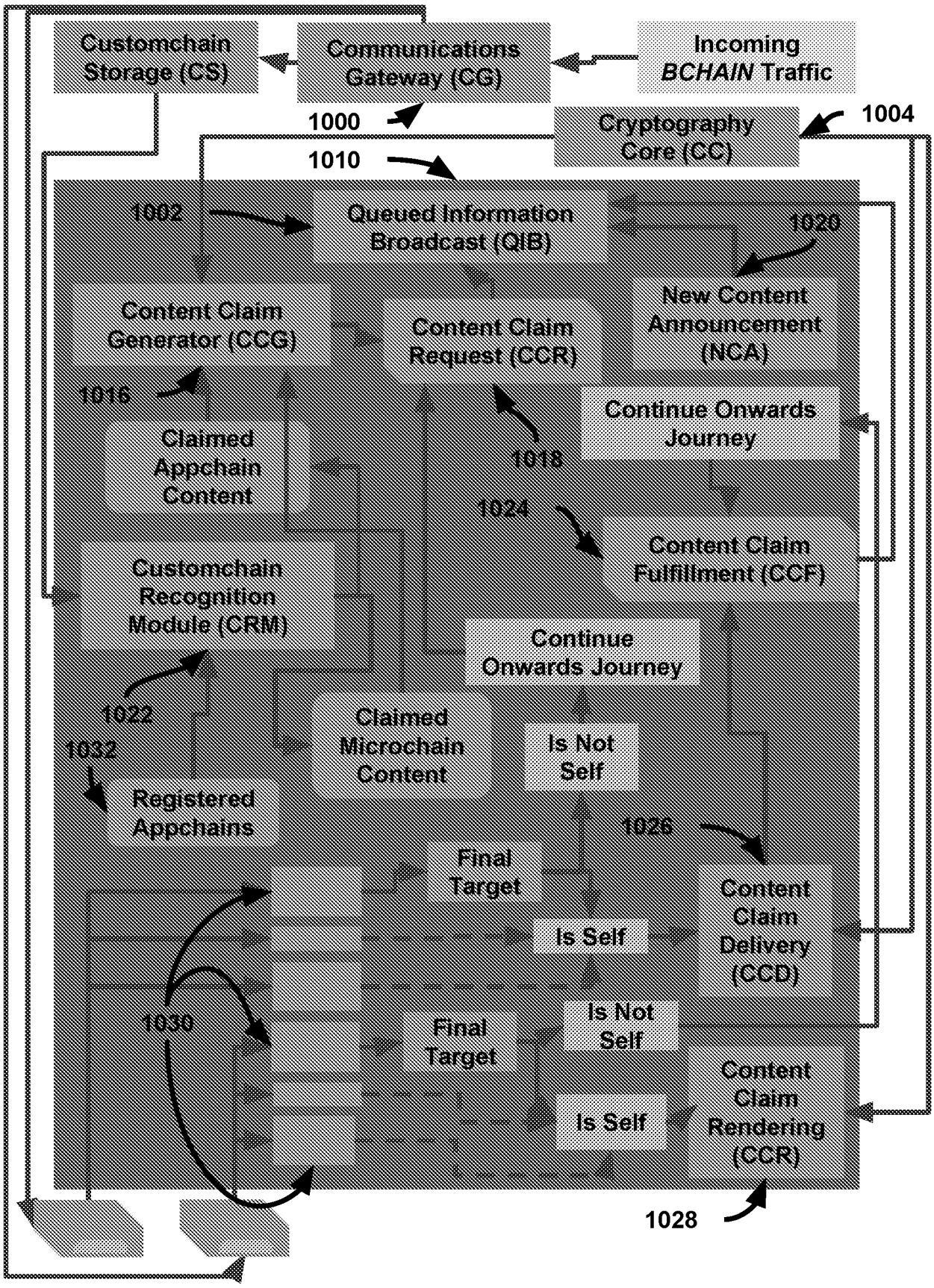

Customchain Storage (CS)
Communications Gateway (CG)
Incoming BCHAIN Traffic
1000
Cryptography Core (CC)
1004
1010
1002
Queued Information Broadcast (QIB)
1020
New Content Announcement (NCA)
Content Claim Generator (CCG)
Content Claim Request (CCR)
1016
Claimed Appchain Content
Continue Onwards Journey
1018
1024
Content Claim Fulfillment (CCF)
Customchain Recognition Module (CRM)
Continue Onwards Journey
1022
1032
Claimed Microchain Content
Is Not Self
Registered Appchains
1026
Final Target
Content Claim Delivery (CCD)
Is Self
1030
Is Not Self
Final Target
Content Claim Rendering (CCR)
Is Self
1028

FIG. 181

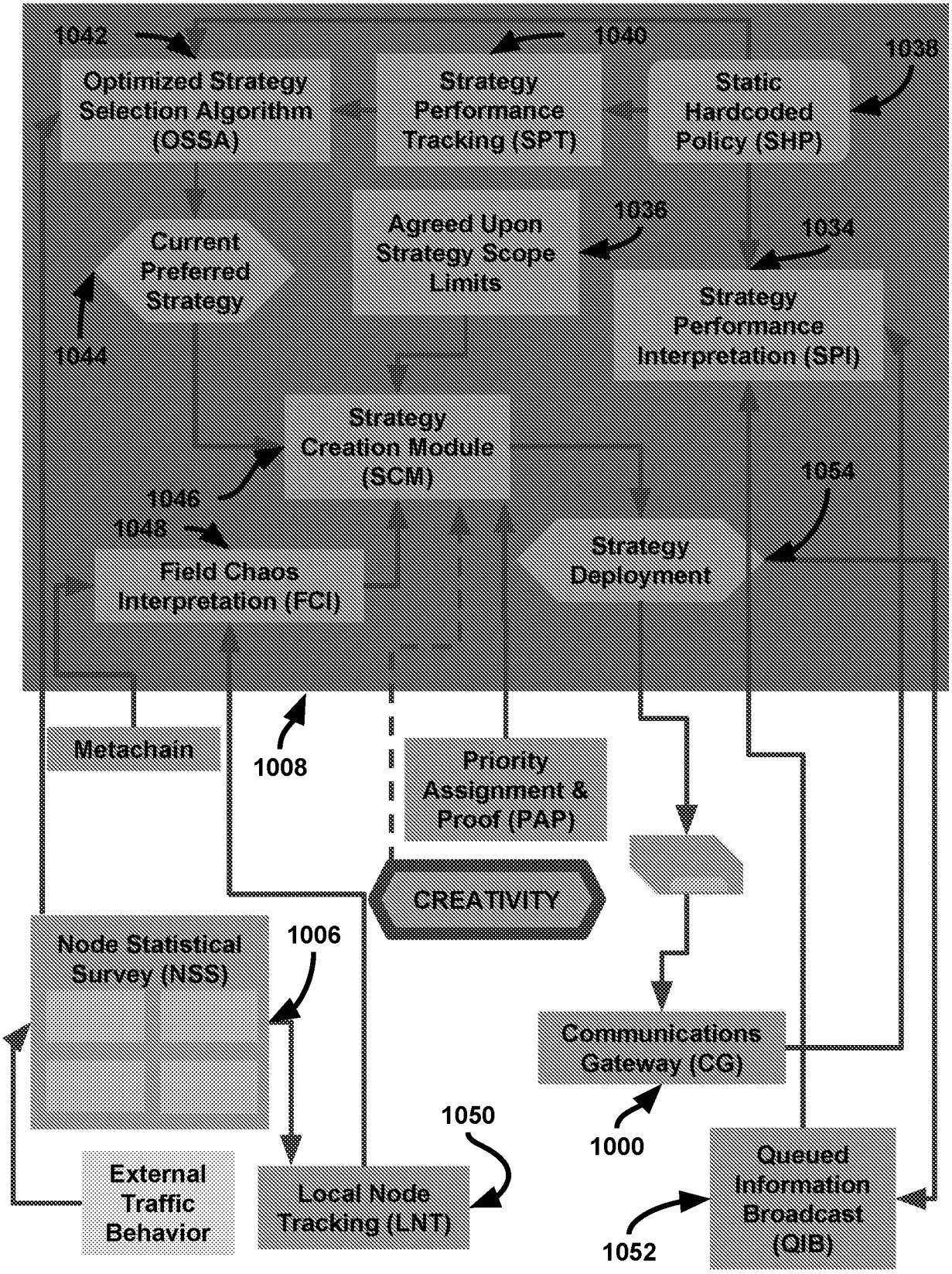

1042
Optimized Strategy Selection Algorithm (OSSA)
1040
Strategy Performance Tracking (SPT)
1038
Static Hardcoded Policy (SHP)
Current Preferred Strategy
1044
Agreed Upon Strategy Scope Limits
1036
1034
Strategy Performance Interpretation (SPI)
Strategy Creation Module (SCM)
1046
1048
Field Chaos Interpretation (FCI)
Strategy Deployment
1054
Metachain
1008
Priority Assignment & Proof (PAP)
CREATIVITY
Node Statistical Survey (NSS)
1006
Communications Gateway (CG)
1050
1000
External Traffic Behavior
Local Node Tracking (LNT)
Queued Information Broadcast (QIB)
1052

FIG. 182

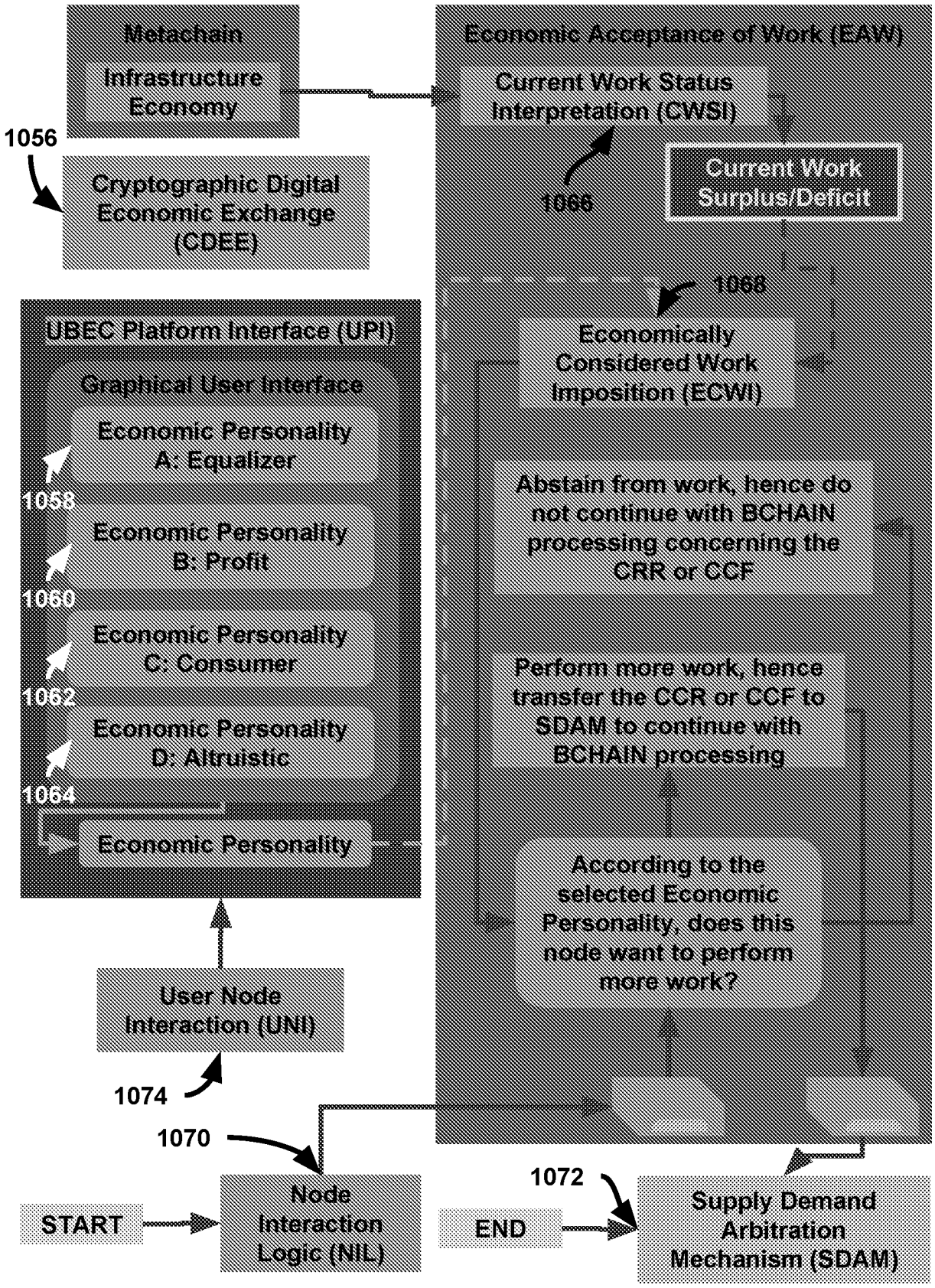

Metachain
Infrastructure Economy
1056
Cryptographic Digital Economic Exchange (CDEE)
UBEC Platform Interface (UPI)
Graphical User Interface
Economic Personality A: Equalizer
1058
Economic Personality B: Profit
1060
Economic Personality C: Consumer
1062
Economic Personality D: Altruistic
1064
Economic Personality
User Node Interaction (UNI)
1074
1070
START
Node Interaction Logic (NIL)
Economic Acceptance of Work (EAW)
Current Work Status Interpretation (CWSI)
1066
Current Work Surplus/Deficit
1068
Economically Considered Work Imposition (ECWI)
Abstain from work, hence do not continue with BCHAIN processing concerning the CRR or CCF
Perform more work, hence transfer the CCR or CCF to SDAM to continue with BCHAIN processing
According to the selected Economic Personality, does this node want to perform more work?
1072
END
Supply Demand Arbitration Mechanism (SDAM)

FIG. 183

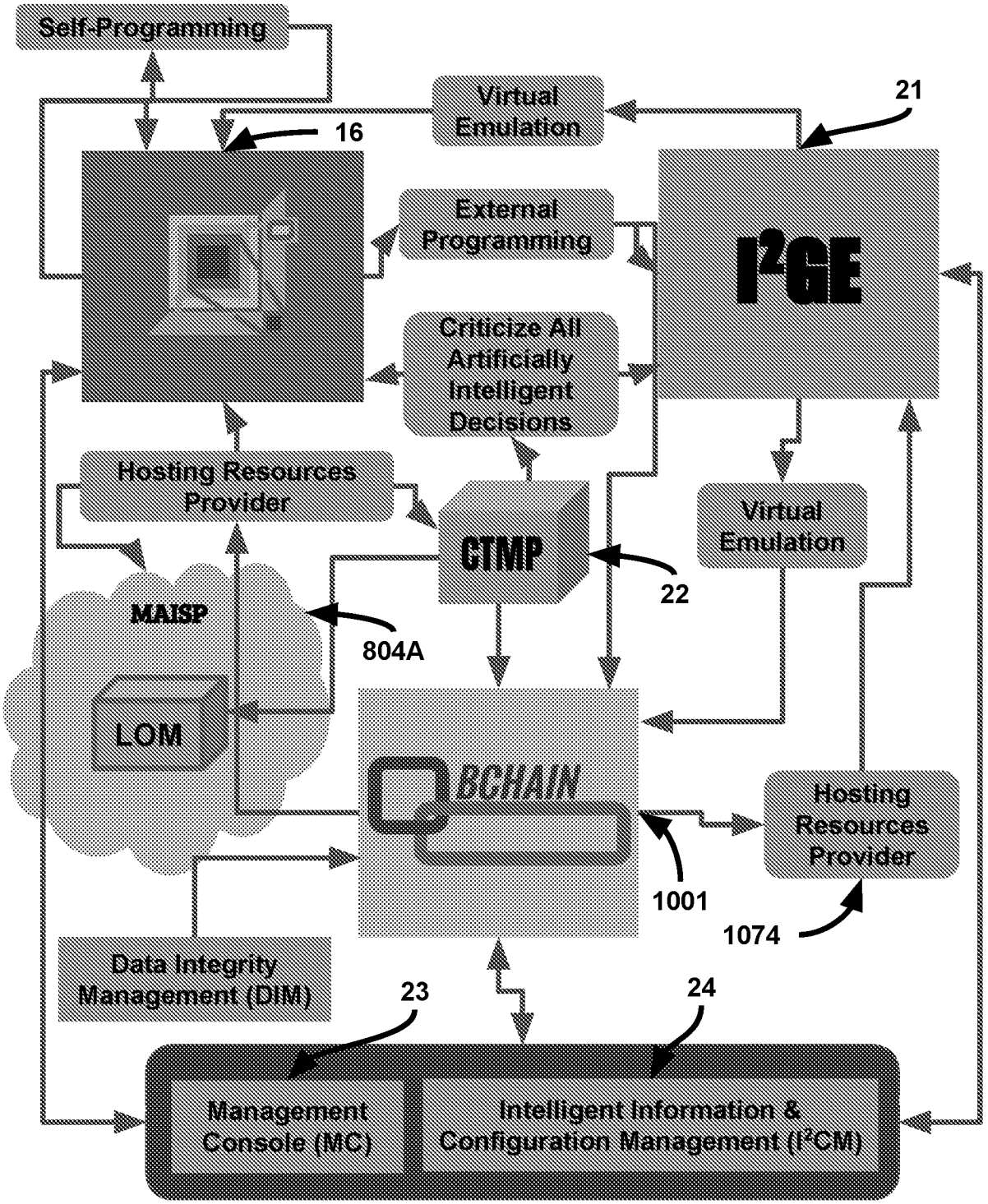

Self-Programming
Virtual Emulation
16
21
External Programming
I²GE
Criticize All Artificially Intelligent Decisions
Hosting Resources Provider
CTMP
Virtual Emulation
22
MAISP
804A
LOM
BCHAIN
Hosting Resources Provider
1001
1074
Data Integrity Management (DIM)
23
24
Management Console (MC)
Intelligent Information & Configuration Management (I²CM)

FIG. 184