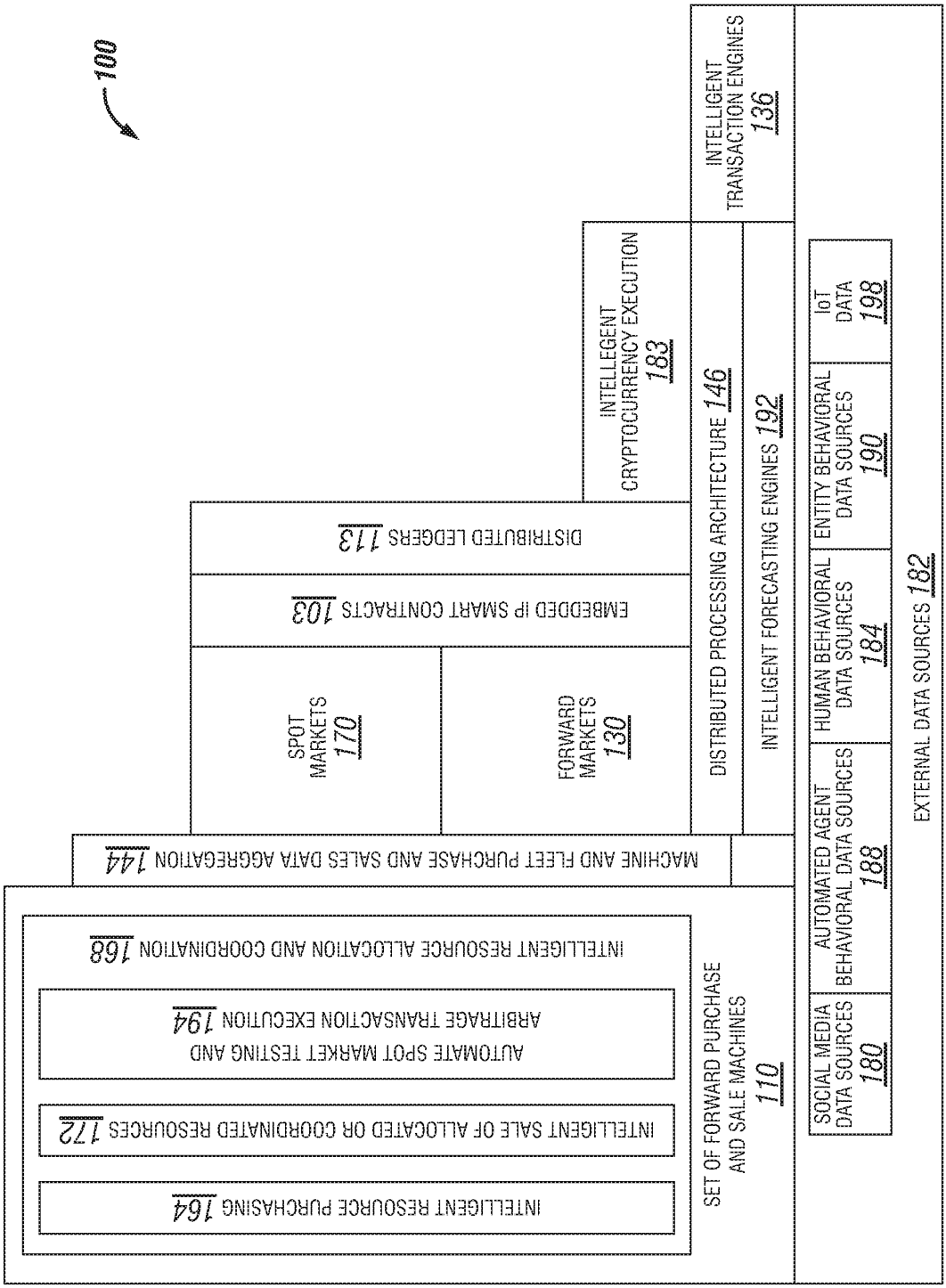
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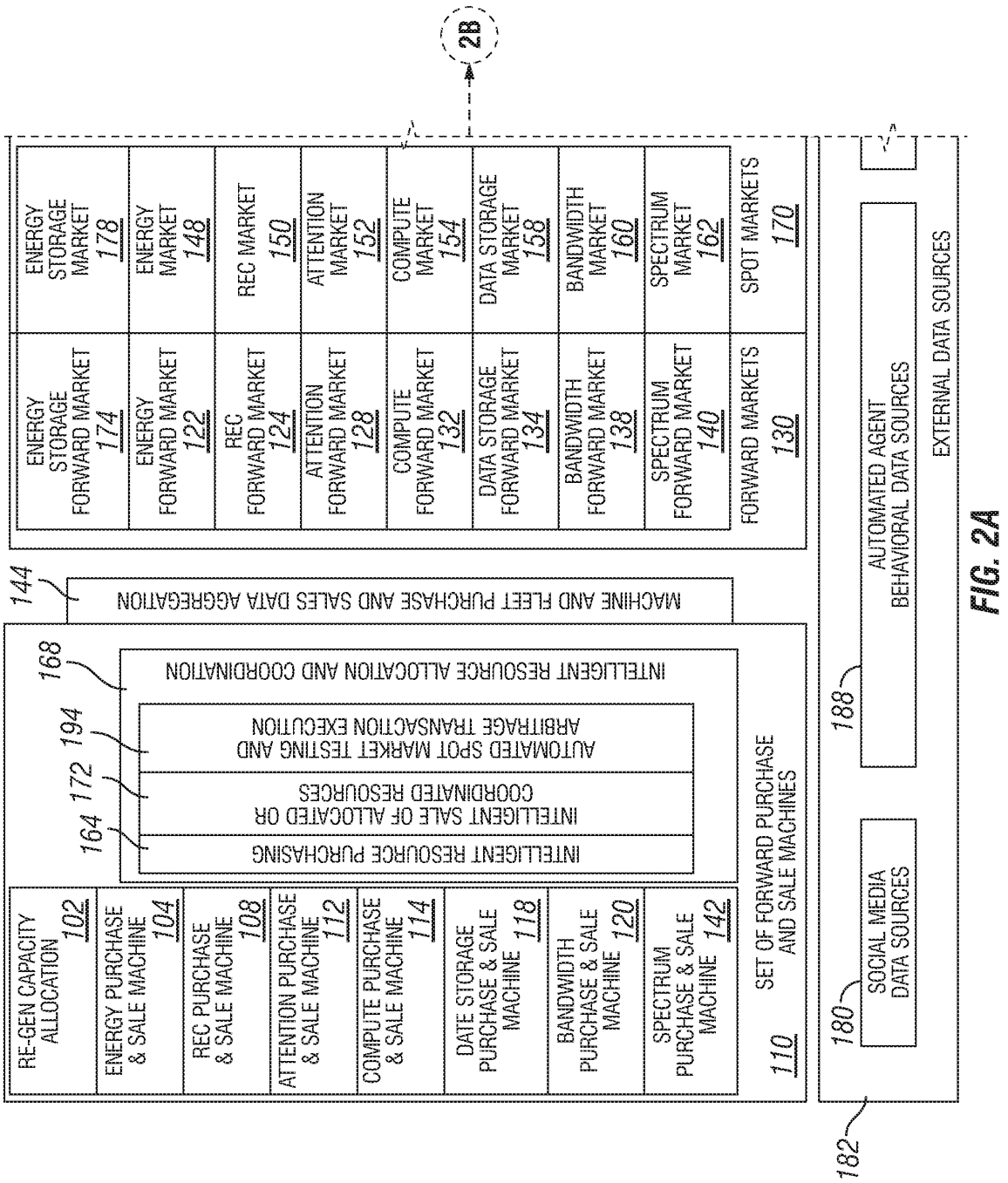
FIG. 1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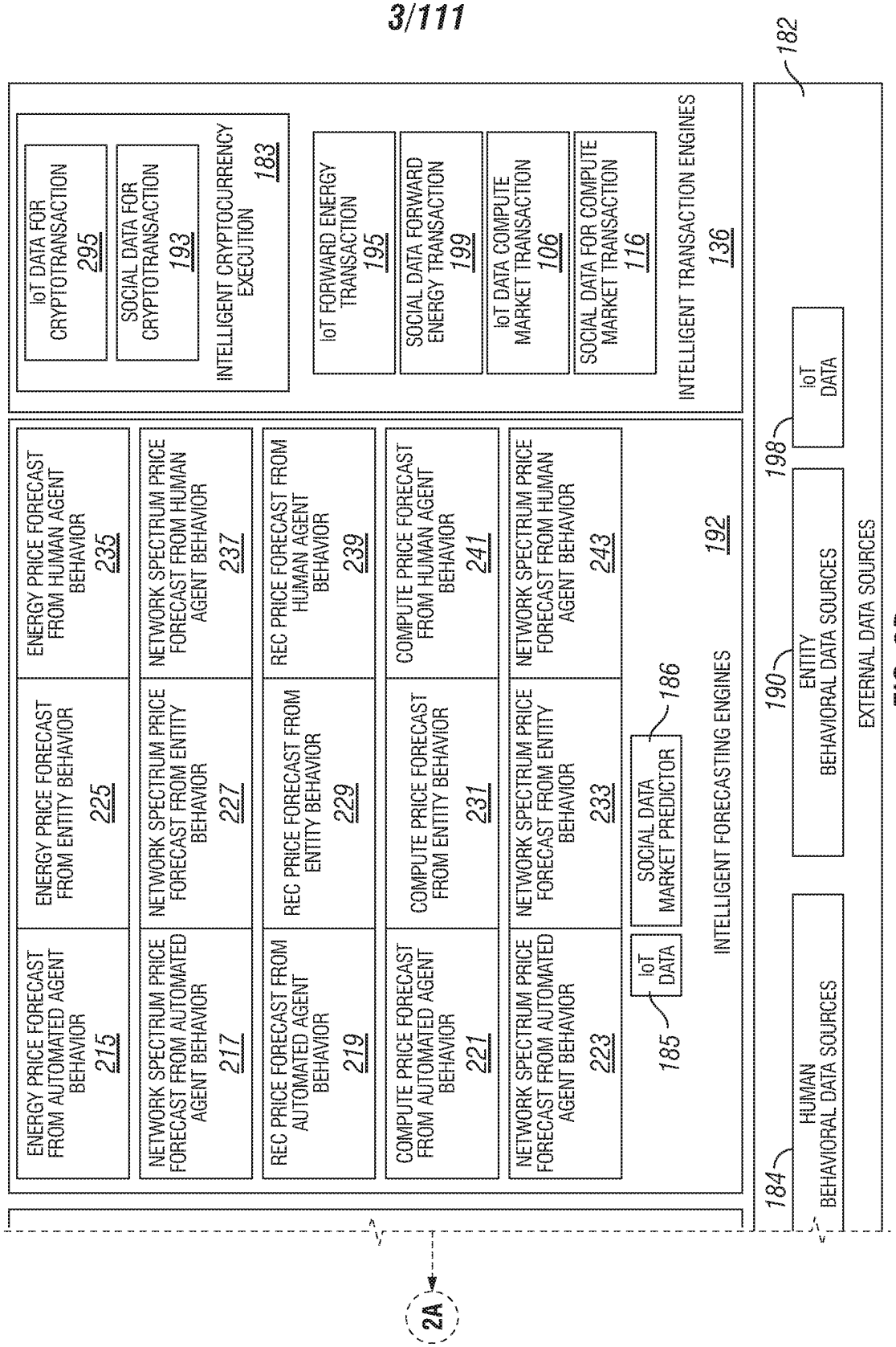
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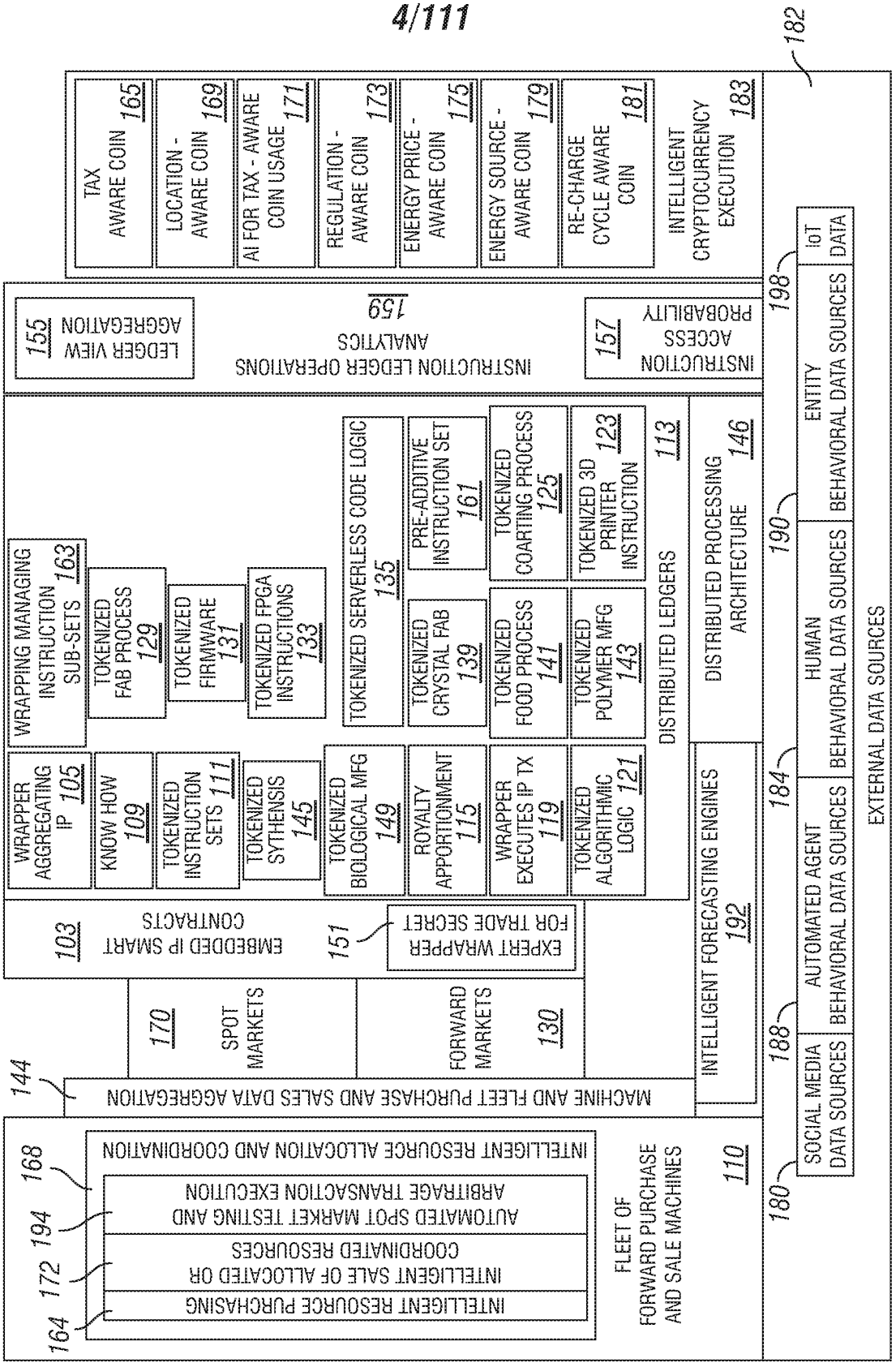
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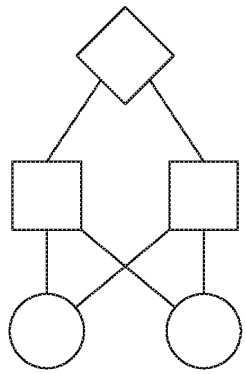


FIG. 6

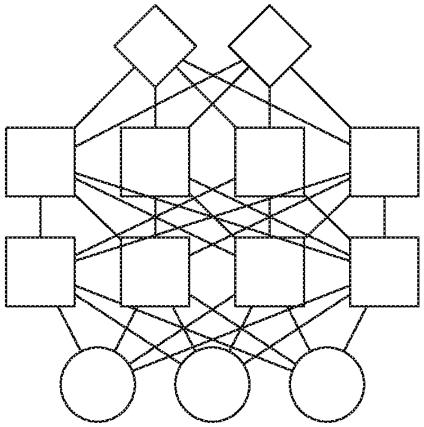


FIG. 8

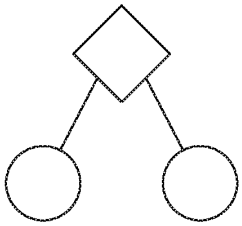


FIG. 5

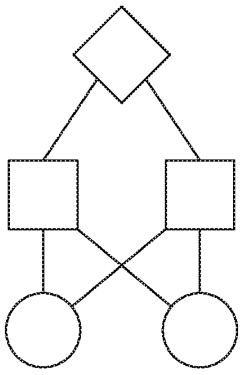


FIG. 7

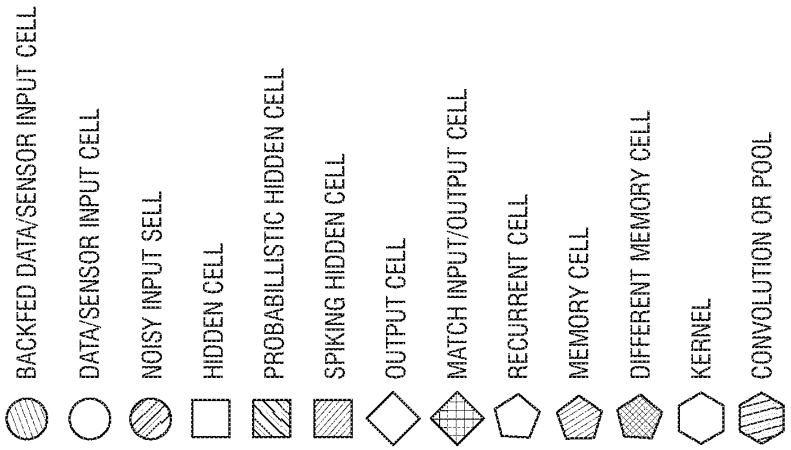


FIG. 4

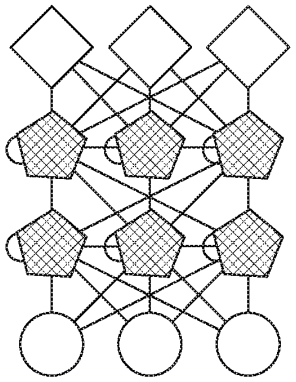


FIG. 11

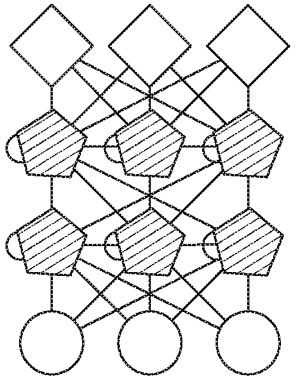


FIG. 10

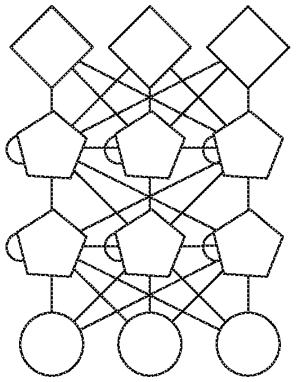
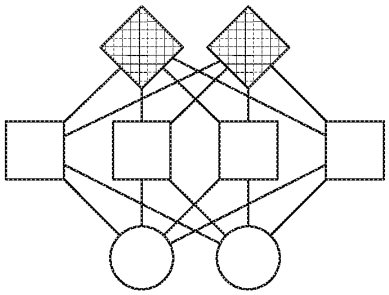


FIG. 9



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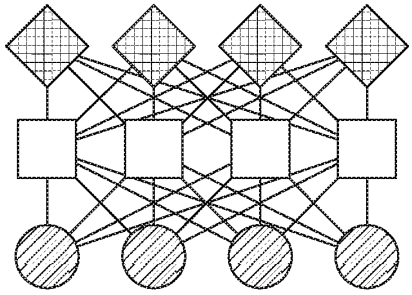

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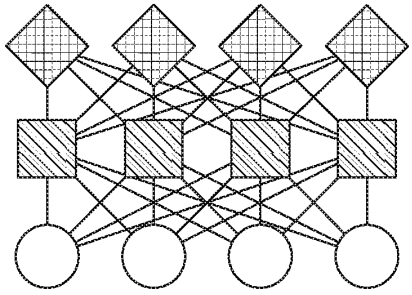

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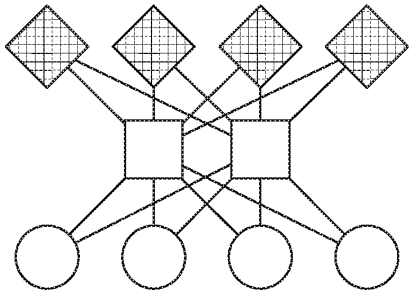


FIG. 12

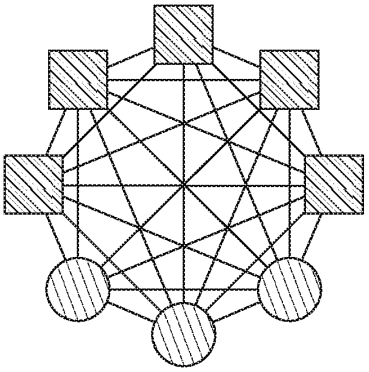
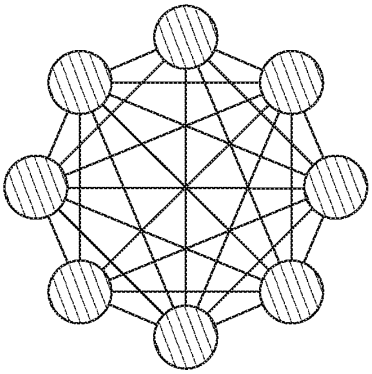


FIG. 18



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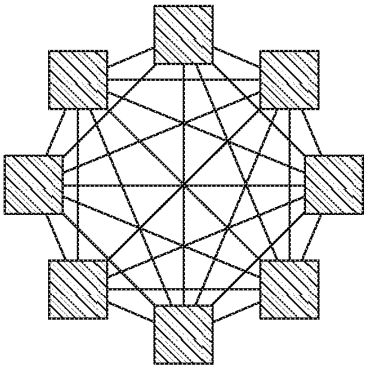

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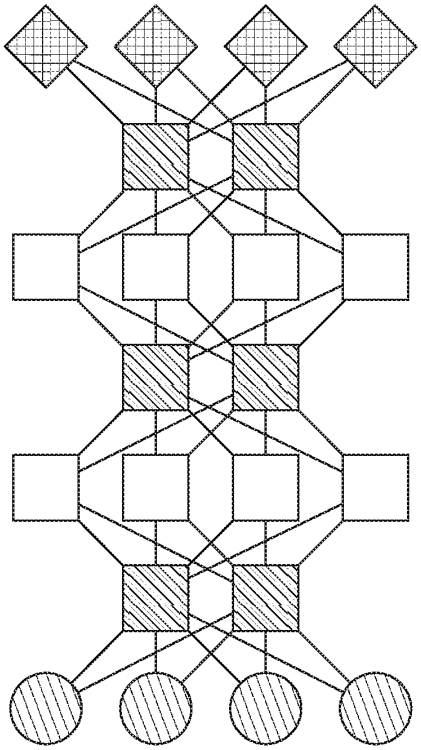

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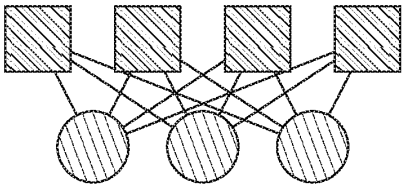

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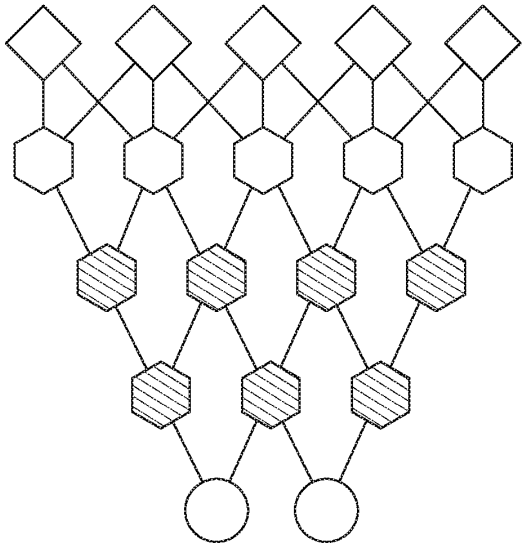


FIG. 22

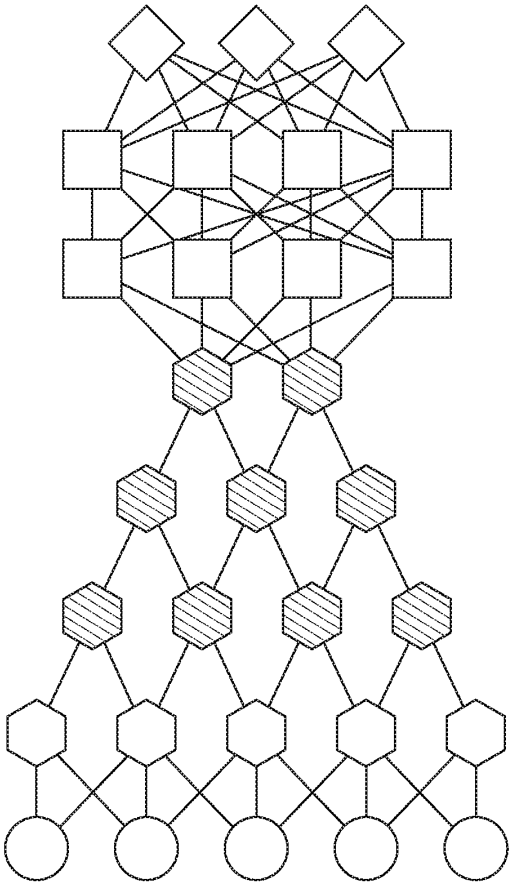


FIG. 21

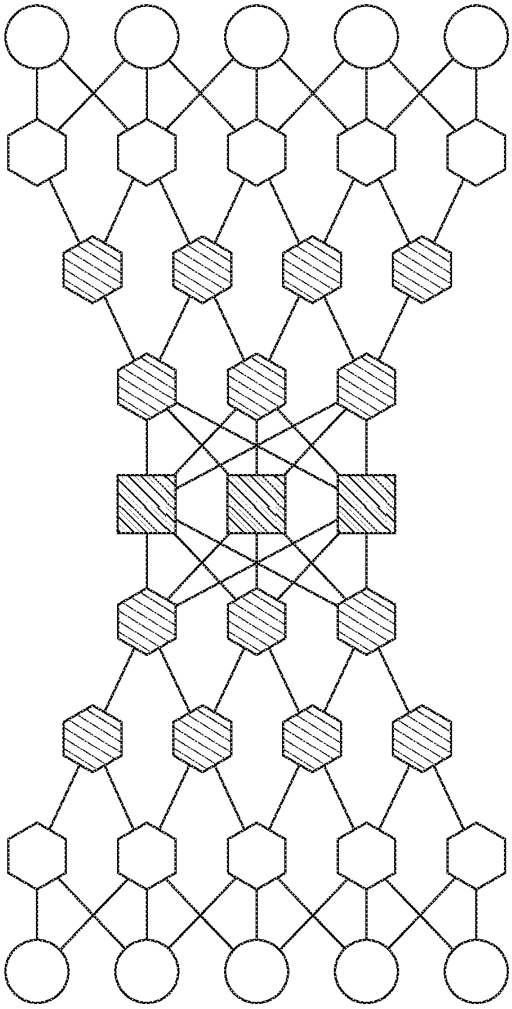
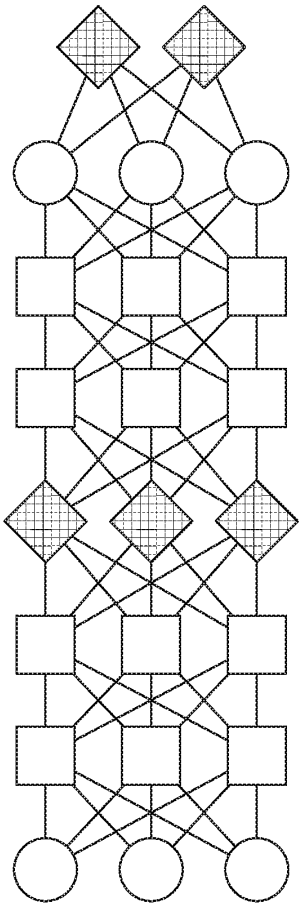


FIG. 23



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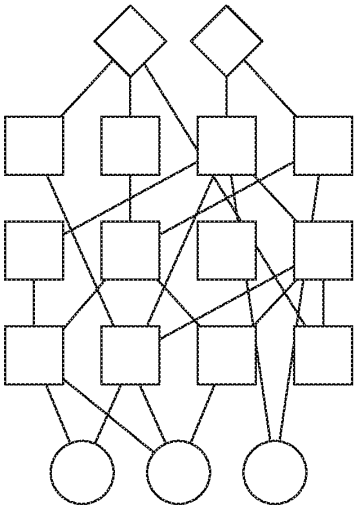

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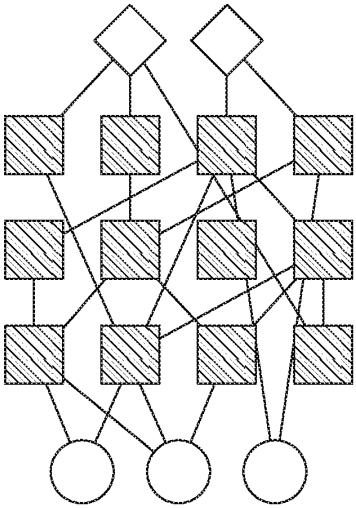
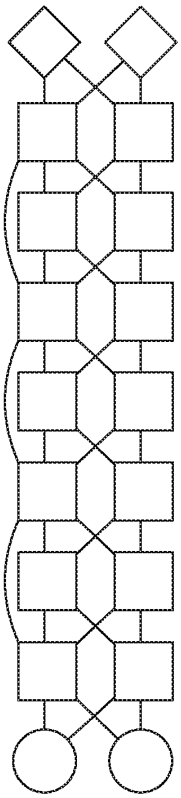


FIG. 25



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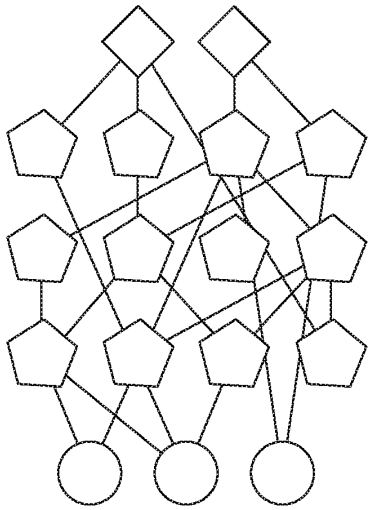
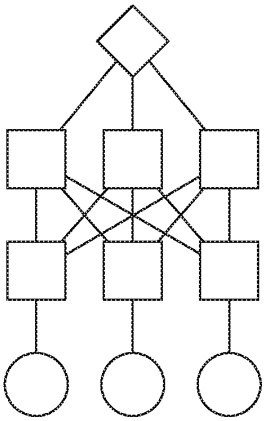


FIG. 27



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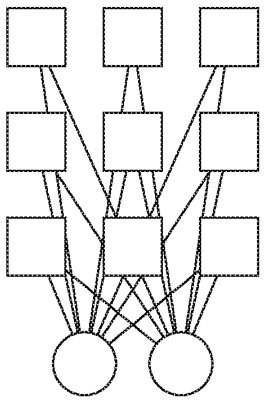

FIG. 29

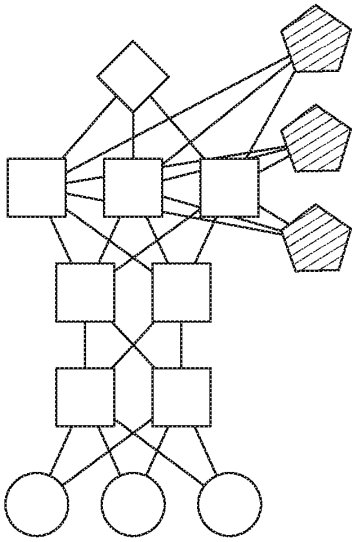

FIG. 31

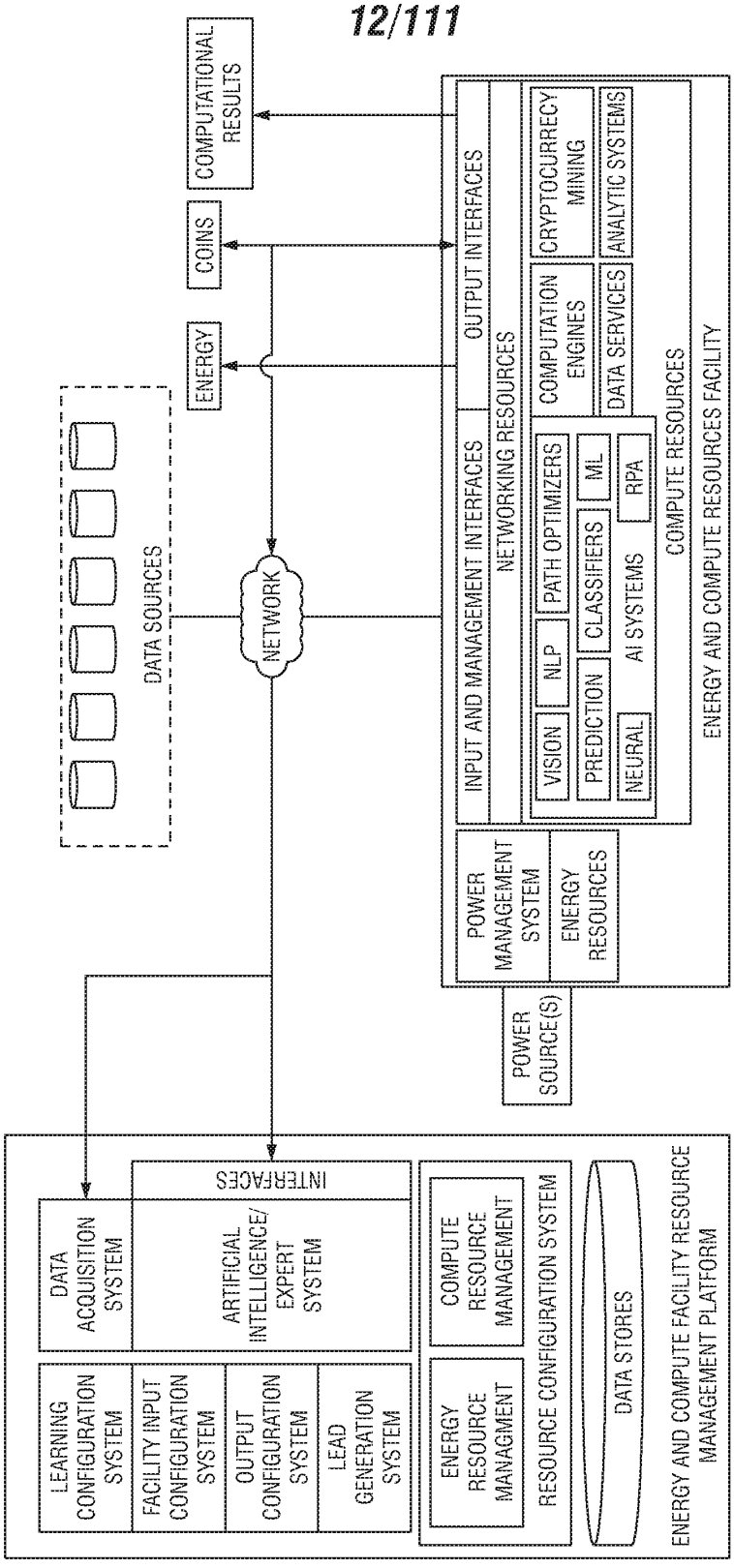
COMPUTATIONAL RESULTS
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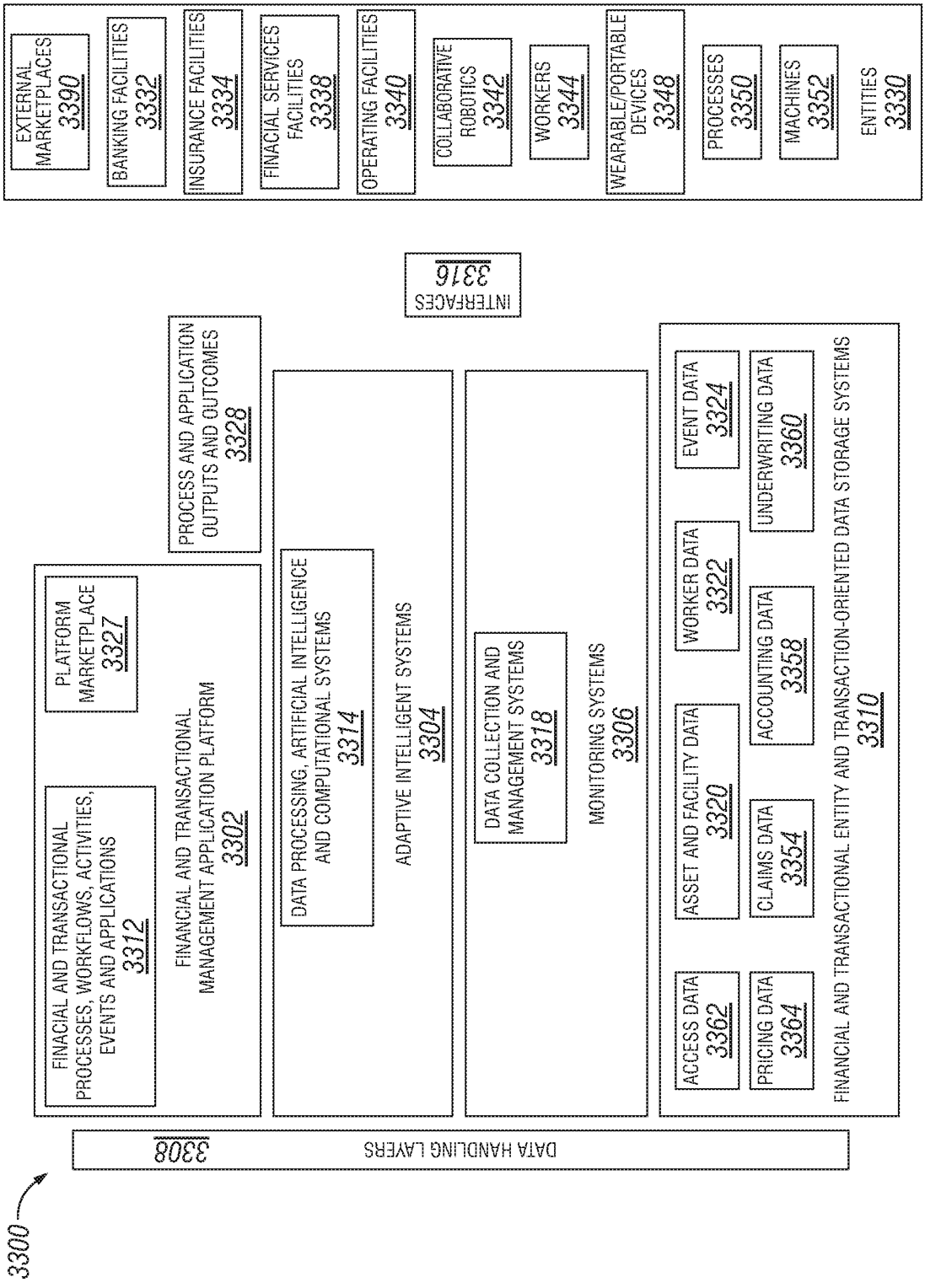
FIG. 32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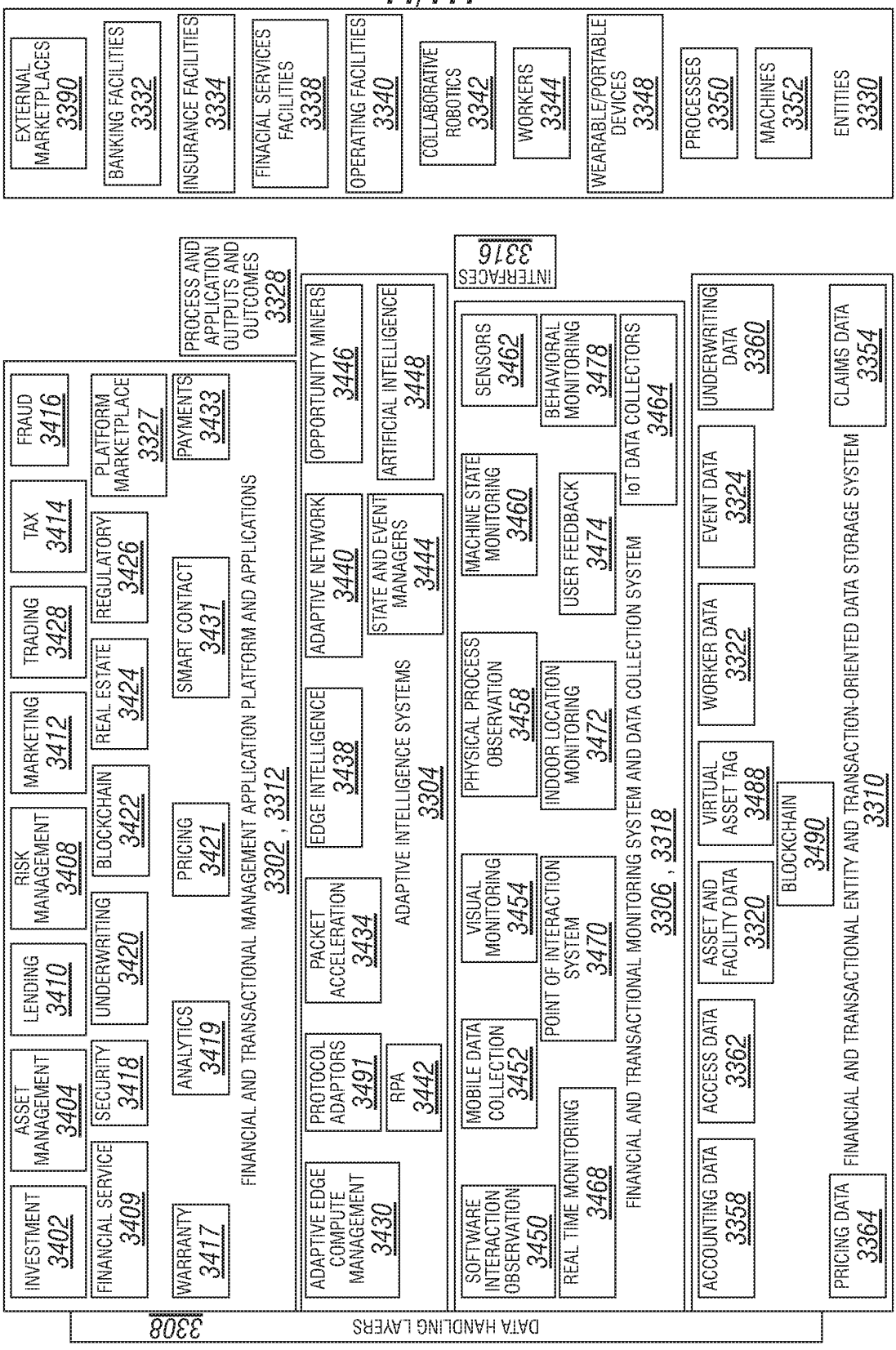
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WORKER DATA 3322
EVENT DATA 3324
UNDERWRITING DATA 3360
BLOCKCHAIN 3490
PRICING DATA 3364
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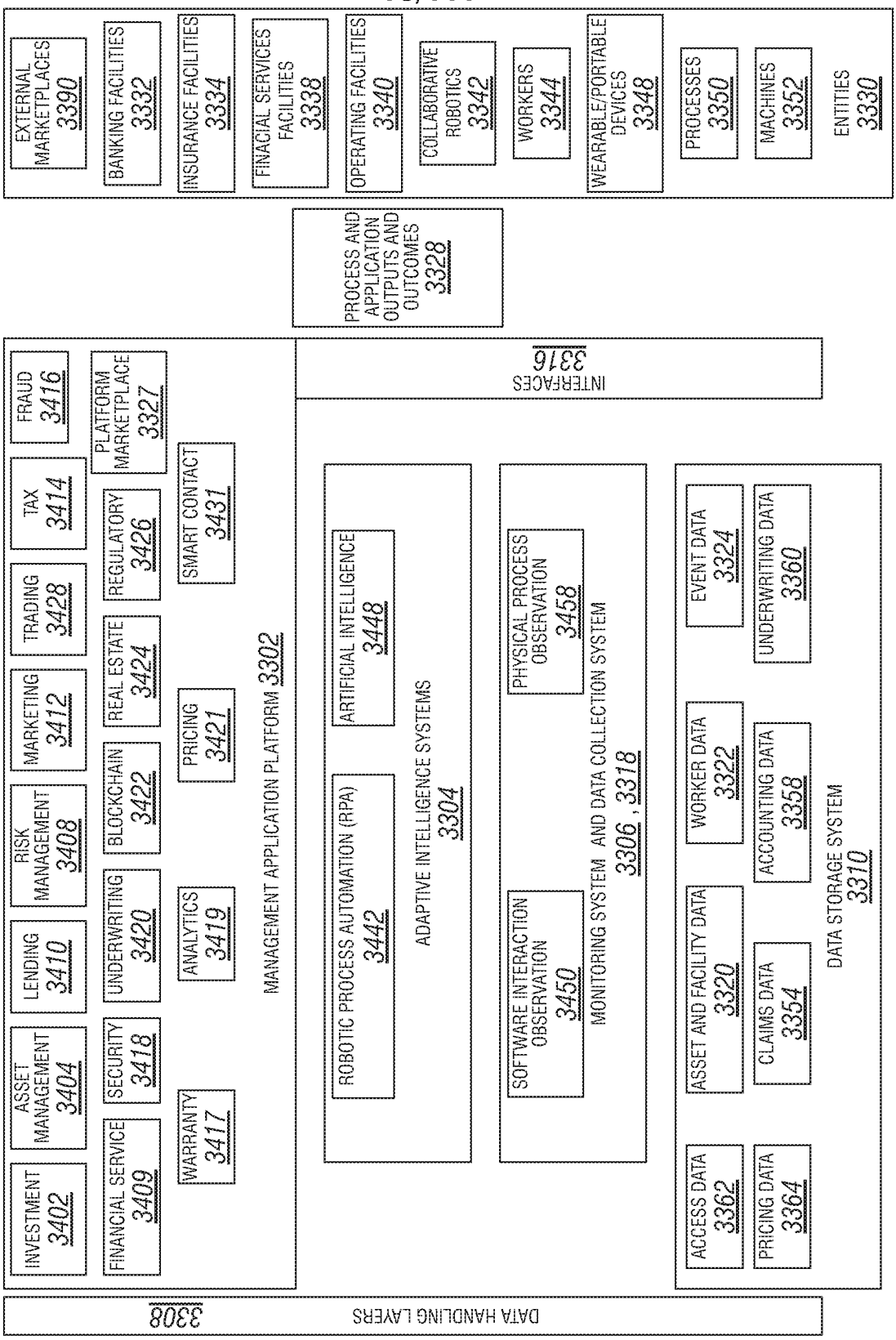
CLAIMS DATA 3354
DATA HANDLING LAYERS 3308

FIG. 34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BANKING FACILITIES 3332
INSURANCE FACILITIES 3334
FINACIAL SERVICES FACILITIES 3338
OPERATING FACILITIES 3340
COLLABORATIVE ROBOTICS 3342
WORKERS 3344
WEARABLE/PORTABLE DEVICES 3348
PROCESSES 3350
MACHINES 3352
ENTITIES 3330
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INTERFACES 3316
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ASSET MANAGEMENT 3404
LENDING 3410
RISK MANAGEMENT 3408
MARKETING 3412
TRADING 3428
TAX 3414
FRAUD 3416
FINANCIAL SERVICE 3409
SECURITY 3418
UNDERWRITING 3420
BLOCKCHAIN 3422
REAL ESTATE 3424
REGULATORY 3426
PLATFORM MARKETPLACE 3327
WARRANTY 3417
ANALYTICS 3419
PRICING 3421
SMART CONTACT 3431
MANAGEMENT APPLICATION PLATFORM 3302
ROBOTIC PROCESS AUTOMATION (RPA) 3442
ARTIFICIAL INTELLIGENCE 3448
ADAPTIVE INTELLIGENCE SYSTEMS 3304
SOFTWARE INTERACTION OBSERVATION 3450
PHYSICAL PROCESS OBSERVATION 3458
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306, 3318
ACCESS DATA 3362
ASSET AND FACILITY DATA 3320
WORKER DATA 3322
EVENT DATA 3324
PRICING DATA 3364
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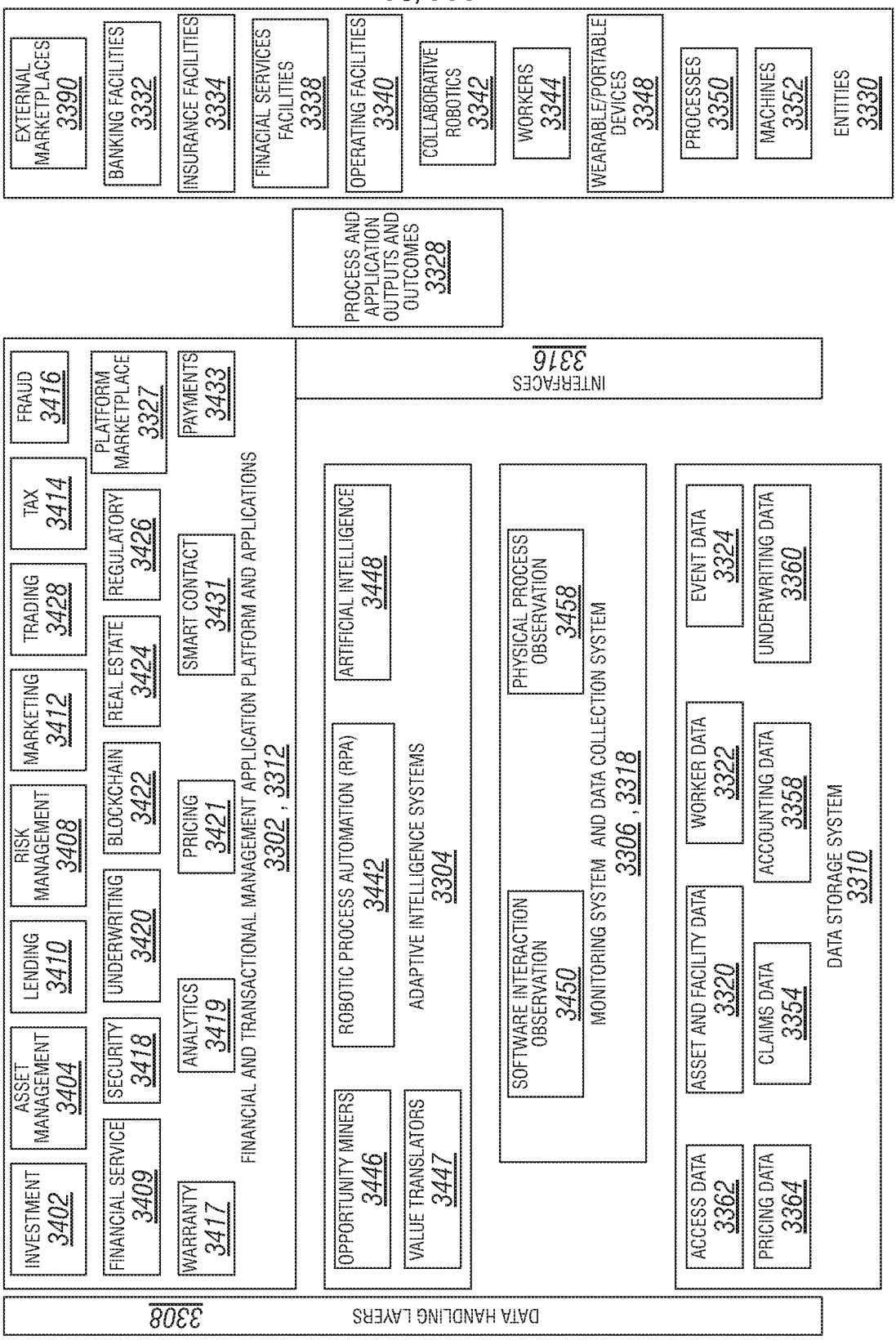
ACCOUNTING DATA 3358
UNDERWRITING DATA 3360
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 35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COLLABORATIVE ROBOTICS 3342
WORKERS 3344
WEARABLE/PORTABLE DEVICES 3348
PROCESSES 3350
MACHINES 3352
ENTITIES 3330
PROCESS AND APPLICATION OUTPUTS AND OUTCOMES 3328
INTERFACES 3316
INVESTMENT 3402
ASSET MANAGEMENT 3404
LENDING 3410
RISK MANAGEMENT 3408
MARKETING 3412
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PRICING 3421
SMART CONTACT 3431
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ASSET AND FACILITY DATA 3320
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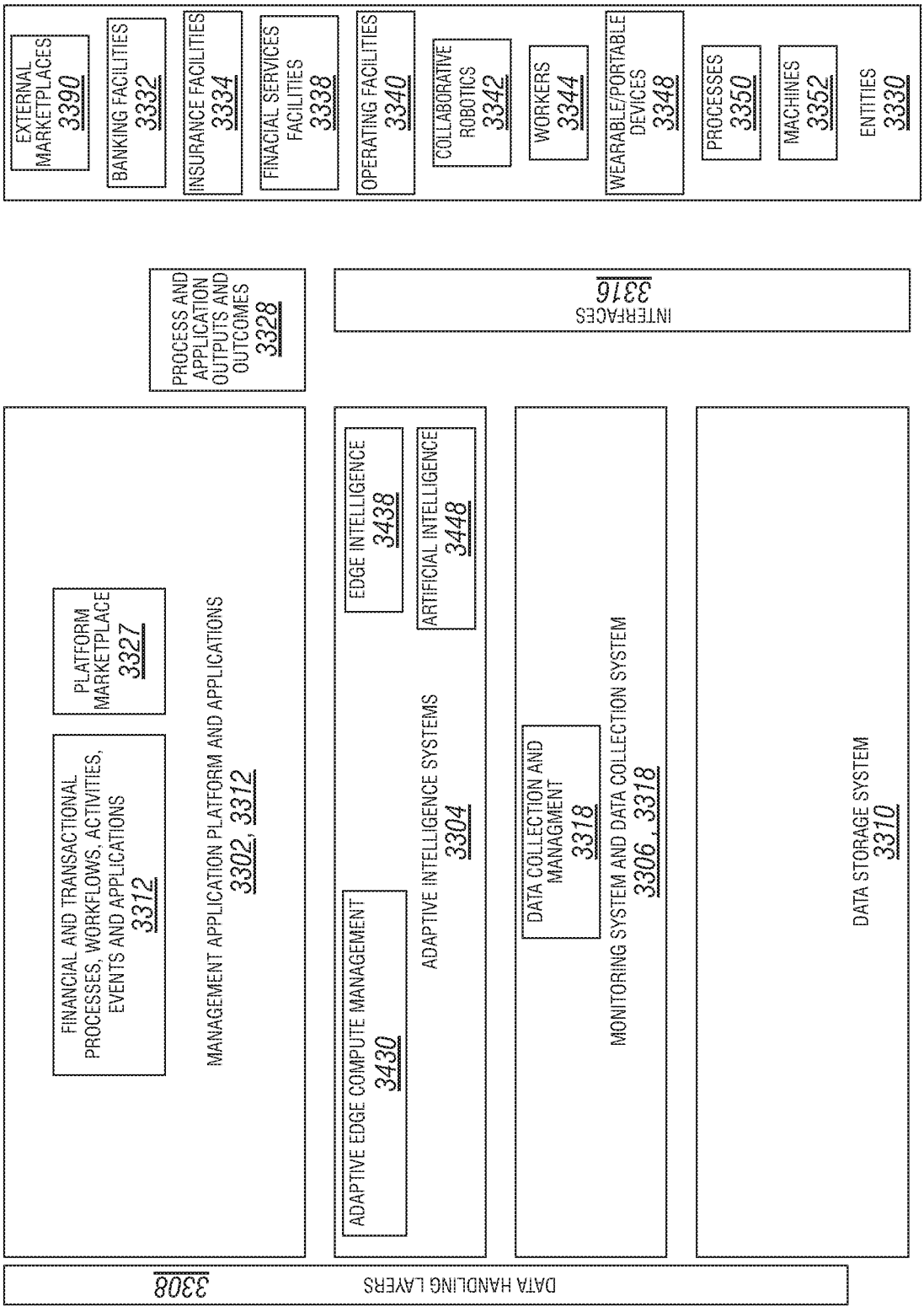
EVENT DATA 3324
PRICING DATA 3364
CLAIMS DATA 3354
ACCOUNTING DATA 3358
UNDERWRITING DATA 3360
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 36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WORKERS 3344
WEARABLE/PORTABLE DEVICES 3348
PROCESSES 3350
MACHINES 3352
ENTITIES 3330
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INTERFACES 3316
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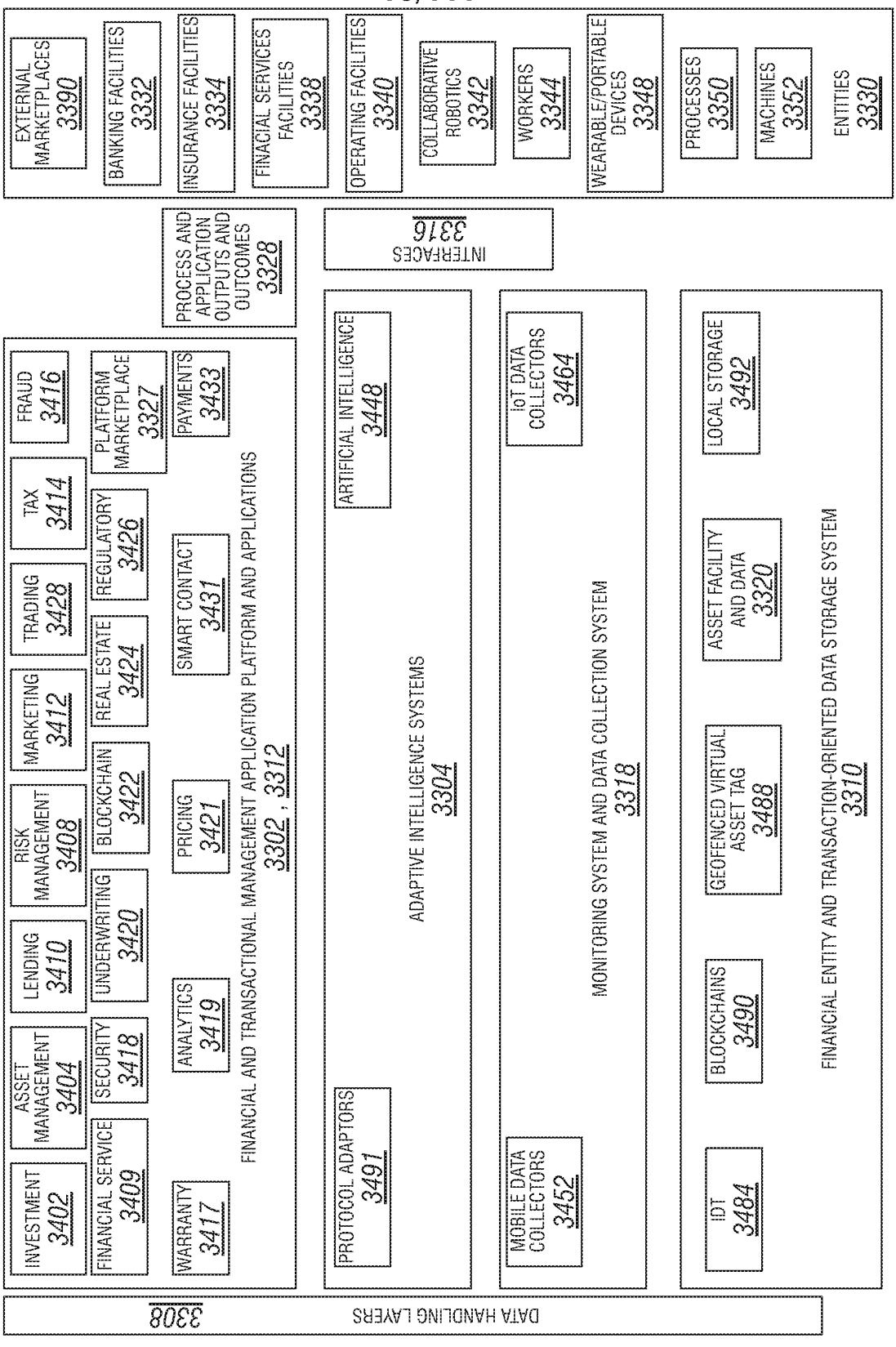
PLATFORM MARKETPLACE 3327
MANAGEMENT APPLICATION PLATFORM AND APPLICATIONS 3302, 3312
ADAPTIVE EDGE COMPUTE MANAGEMENT 3430
EDGE INTELLIGENCE 3438
ARTIFICIAL INTELLIGENCE 3448
ADAPTIVE INTELLIGENCE SYSTEMS 3304
DATA COLLECTION AND MANAGMENT 3318
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306, 3318
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 37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WORKERS 3344
WEARABLE/PORTABLE DEVICES 3348
PROCESSES 3350
MACHINES 3352
ENTITIES 3330
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ASSET MANAGEMENT 3404
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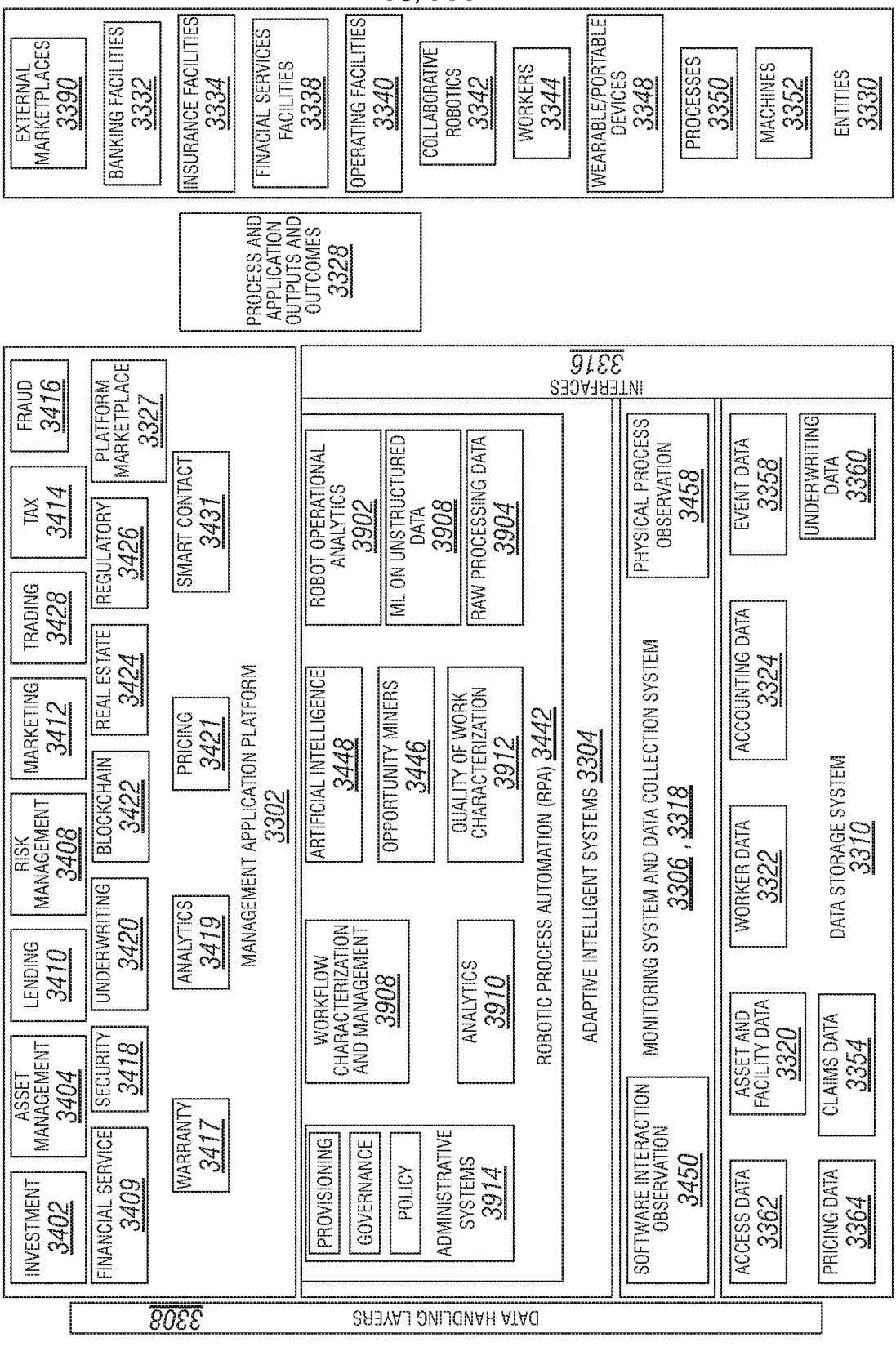
REGULATORY 3426
PLATFORM MARKETPLACE 3327
PAYMENTS 3433
WARRANTY 3417
ANALYTICS 3419
PRICING 3421
SMART CONTACT 3431
FINANCIAL AND TRANSACTIONAL MANAGEMENT APPLICATION PLATFORM AND APPLICATIONS 3302 , 3312
ARTIFICIAL INTELLIGENCE 3448
PROTOCOL ADAPTORS 3491
ADAPTIVE INTELLIGENCE SYSTEMS 3304
IoT DATA COLLECTORS 3464
MOBILE DATA COLLECTORS 3452
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3318
LOCAL STORAGE 3492
ASSET FACILITY AND DATA 3320
GEOFENCED VIRTUAL ASSET TAG 3488
BLOCKCHAINS 3490
IDT 3484
FINANCIAL ENTITY AND TRANSACTION-ORIENTED DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 38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INSURANCE FACILITIES 3334
FINACIAL SERVICES FACILITIES 3338
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WORKERS 3344
WEARABLE/PORTABLE DEVICES 3348
PROCESSES 3350
MACHINES 3352
ENTITIES 3330
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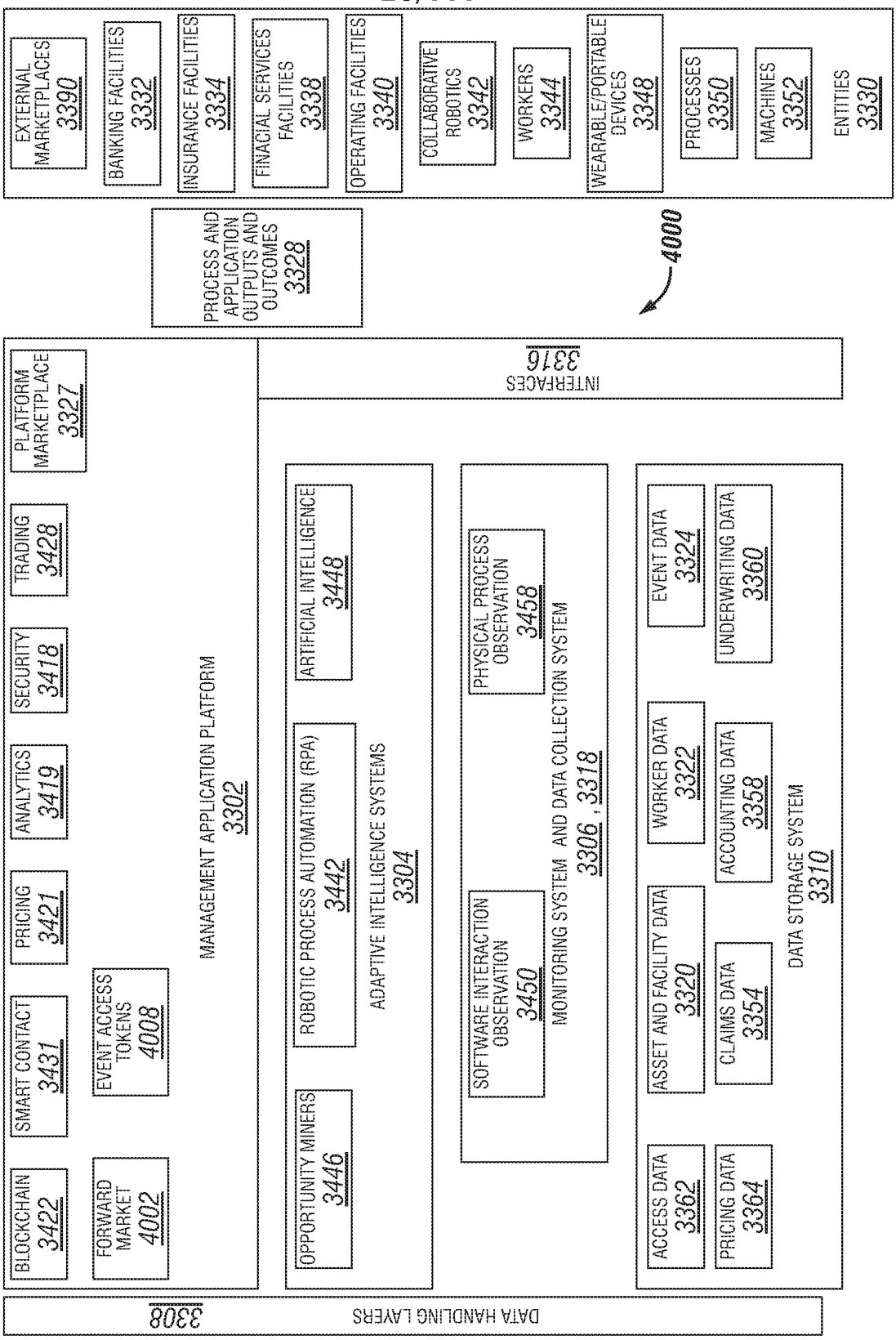
LENDING 3410
RISK MANAGEMENT 3408
MARKETING 3412
TRADING 3428
TAX 3414
FRAUD 3416
FINANCIAL SERVICE 3409
SECURITY 3418
UNDERWRITING 3420
BLOCKCHAIN 3422
REAL ESTATE 3424
REGULATORY 3426
PLATFORM MARKETPLACE 3327
WARRANTY 3417
ANALYTICS 3419
PRICING 3421
SMART CONTACT 3431
MANAGEMENT APPLICATION PLATFORM 3302
ARTIFICIAL INTELLIGENCE 3448
ROBOT OPERATIONAL ANALYTICS 3902
OPPORTUNITY MINERS 3446
ML ON UNSTRUCTURED DATA 3908
QUALITY OF WORK CHARACTERIZATION 3912
RAW PROCESSING DATA 3904
WORKFLOW CHARACTERIZATION AND MANAGEMENT 3908
ANALYTICS 3910
ROBOTIC PROCESS AUTOMATION (RPA) 3442
ADAPTIVE INTELLIGENT SYSTEMS 3304
PROVISIONING
GOVERNANCE
POLICY
ADMINISTRATIVE SYSTEMS 3914
PHYSICAL PROCESS OBSERVATION 3458
SOFTWARE INTERACTION OBSERVATION 3450
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306 , 3318
EVENT DATA 3358
UNDERWRITING DATA 3360
ACCESS DATA 3362
ASSET AND FACILITY DATA 3320
WORKER DATA 3322
ACCOUNTING DATA 3324
PRICING DATA 3364
CLAIMS DATA 3354
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 39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WORKERS 3344
WEARABLE/PORTABLE DEVICES 3348
PROCESSES 3350
MACHINES 3352
ENTITIES 3330
PROCESS AND APPLICATION OUTPUTS AND OUTCOMES 3328
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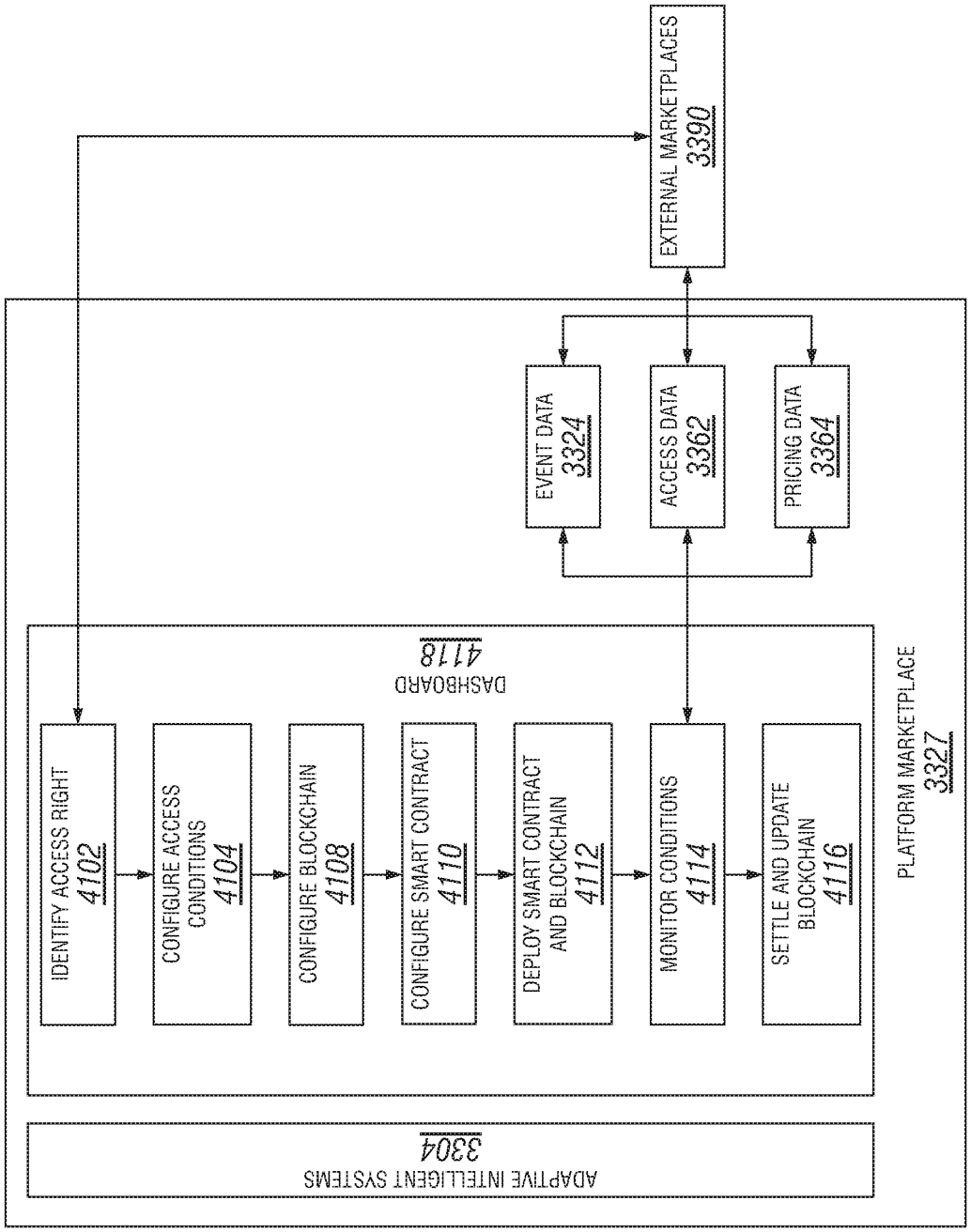
INTERFACES 3316
PLATFORM MARKETPLACE 3327
TRADING 3428
SECURITY 3418
ANALYTICS 3419
PRICING 3421
SMART CONTACT 3431
EVENT ACCESS TOKENS 4008
BLOCKCHAIN 3422
FORWARD MARKET 4002
MANAGEMENT APPLICATION PLATFORM 3302
ARTIFICIAL INTELLIGENCE 3448
ROBOTIC PROCESS AUTOMATION (RPA) 3442
OPPORTUNITY MINERS 3446
ADAPTIVE INTELLIGENCE SYSTEMS 3304
PHYSICAL PROCESS OBSERVATION 3458
SOFTWARE INTERACTION OBSERVATION 3450
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306, 3318
EVENT DATA 3324
UNDERWRITING DATA 3360
WORKER DATA 3322
ASSET AND FACILITY DATA 3320
ACCOUNTING DATA 3358
CLAIMS DATA 3354
ACCESS DATA 3362
PRICING DATA 3364
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 40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3324
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3364
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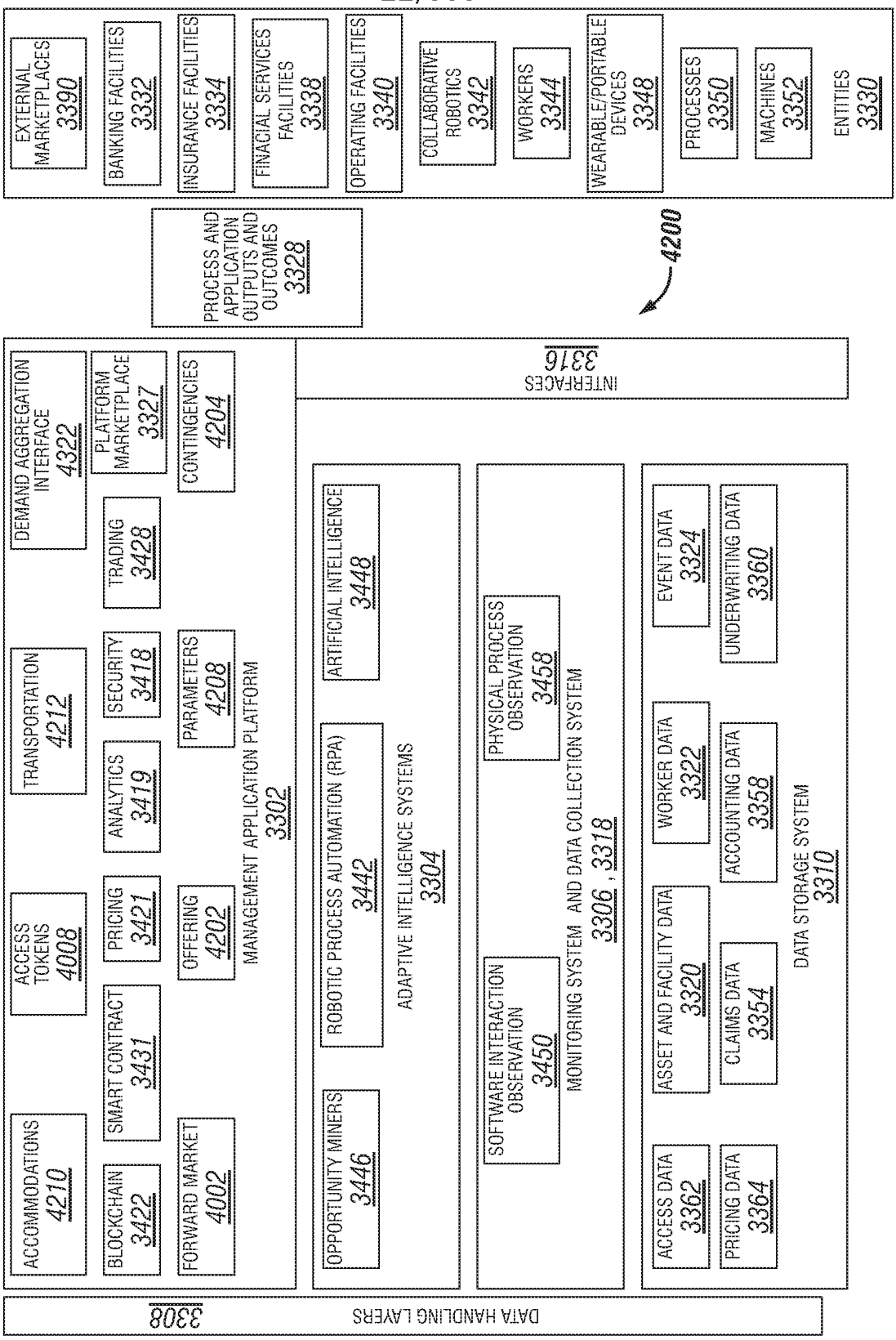
4102
CONFIGURE ACCESS CONDITIONS
4104
CONFIGURE BLOCKCHAIN
4108
CONFIGURE SMART CONTRACT
4110
DEPLOY SMART CONTRACT AND BLOCKCHAIN
4112
MONITOR CONDITIONS
4114
SETTLE AND UPDATE BLOCKCHAIN
4116
PLATFORM MARKETPLACE
3327
ADAPTIVE INTELLIGENT SYSTEMS
3304

FIG. 41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BANKING FACILITIES 3332
INSURANCE FACILITIES 3334
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OPERATING FACILITIES 3340
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WORKERS 3344
WEARABLE/PORTABLE DEVICES 3348
PROCESSES 3350
MACHINES 3352
ENTITIES 3330
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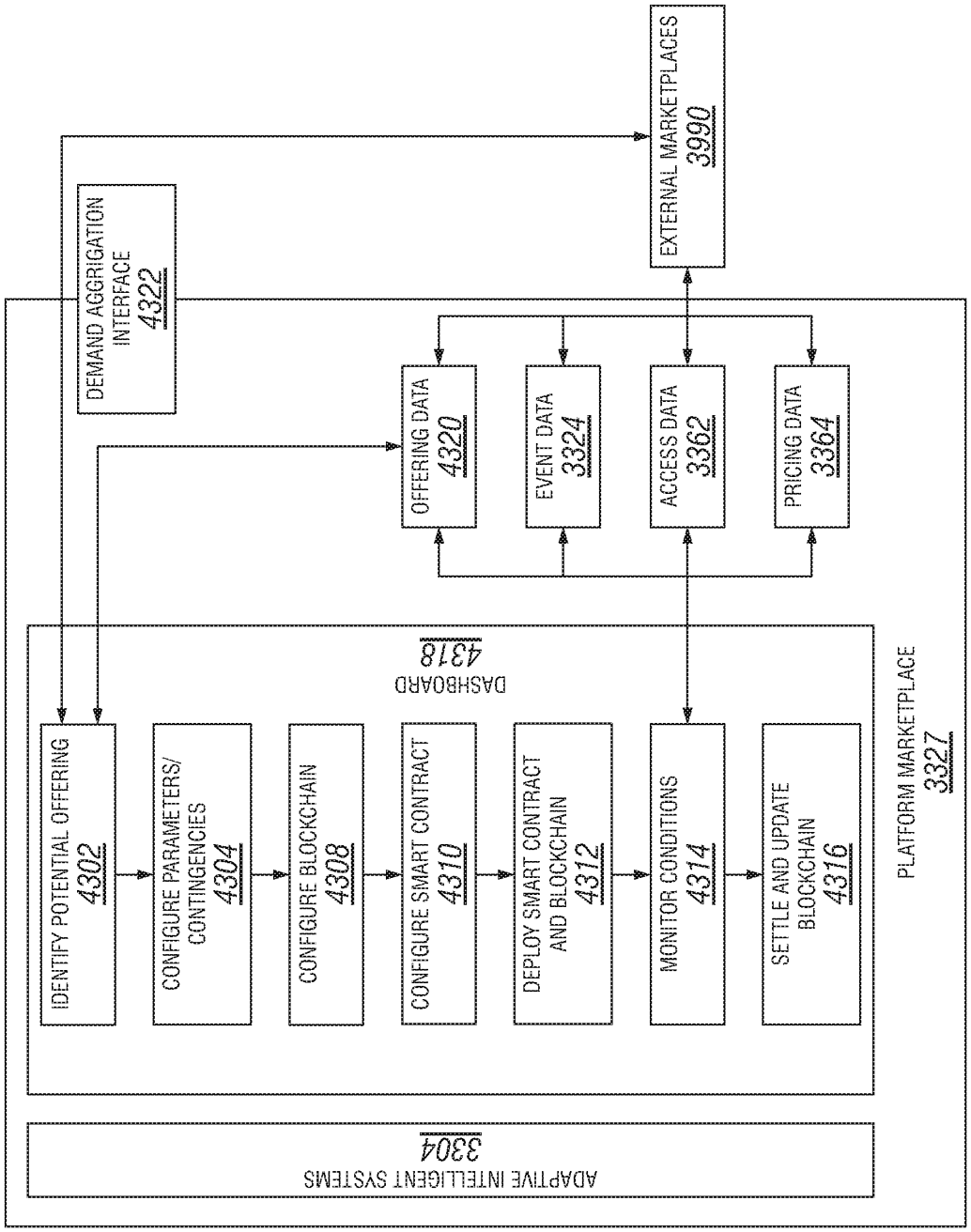
PROCESS AND APPLICATION OUTPUTS AND OUTCOMES 3328
INTERFACES 3316
DEMAND AGGREGATION INTERFACE 4322
PLATFORM MARKETPLACE 3327
CONTINGENCIES 4204
TRANSPORTATION 4212
TRADING 3428
SECURITY 3418
ANALYTICS 3419
PARAMETERS 4208
PRICING 3421
OFFERING 4202
ACCESS TOKENS 4008
SMART CONTRACT 3431
BLOCKCHAIN 3422
FORWARD MARKET 4002
ACCOMMODATIONS 4210
MANAGEMENT APPLICATION PLATFORM 3302
ARTIFICIAL INTELLIGENCE 3448
ROBOTIC PROCESS AUTOMATION (RPA) 3442
OPPORTUNITY MINERS 3446
ADAPTIVE INTELLIGENCE SYSTEMS 3304
PHYSICAL PROCESS OBSERVATION 3458
SOFTWARE INTERACTION OBSERVATION 3450
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306, 3318
EVENT DATA 3324
UNDERWRITING DATA 3360
WORKER DATA 3322
ASSET AND FACILITY DATA 3320
ACCOUNTING DATA 3358
CLAIMS DATA 3354
ACCESS DATA 3362
PRICING DATA 3364
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 42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DEMAND AGGRIGATION INTERFACE
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OFFERING DATA
4320
EVENT DATA
3324
ACCESS DATA
3362
PRICING DATA
3364
DASHBOARD
4318
IDENTIFY POTENTIAL OFFERING
4302
CONFIGURE PARAMETERS/ CONTINGENCIES
4304
CONFIGURE BLOCKCHAIN
4308
CONFIGURE SMART CONTRACT
4310
DEPLOY SMART CONTRACT AND BLOCKCHAIN
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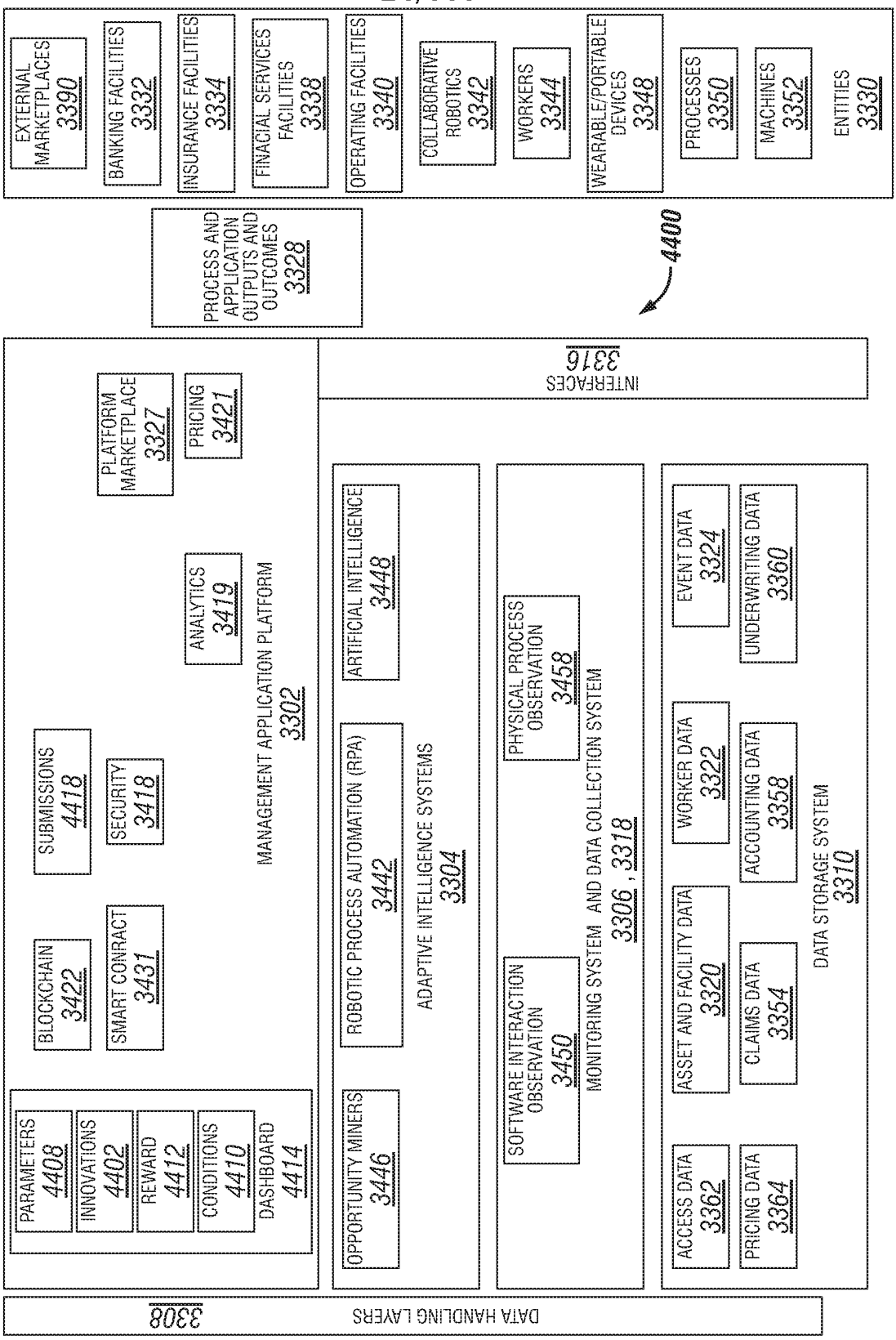
MONITOR CONDITIONS
4314
SETTLE AND UPDATE BLOCKCHAIN
4316
PLATFORM MARKETPLACE
3327
ADAPTIVE INTELLIGENT SYSTEMS
3304

FIG. 43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INSURANCE FACILITIES 3334
FINACIAL SERVICES FACILITIES 3338
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WORKERS 3344
WEARABLE/PORTABLE DEVICES 3348
PROCESSES 3350
MACHINES 3352
ENTITIES 3330
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INTERFACES 3316
PLATFORM MARKETPLACE 3327
PRICING 3421
ANALYTICS 3419
SUBMISSIONS 4418
SECURITY 3418
BLOCKCHAIN 3422
SMART CONRACT 3431
MANAGEMENT APPLICATION PLATFORM 3302
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REWARD 4412
CONDITIONS 4410
DASHBOARD 4414
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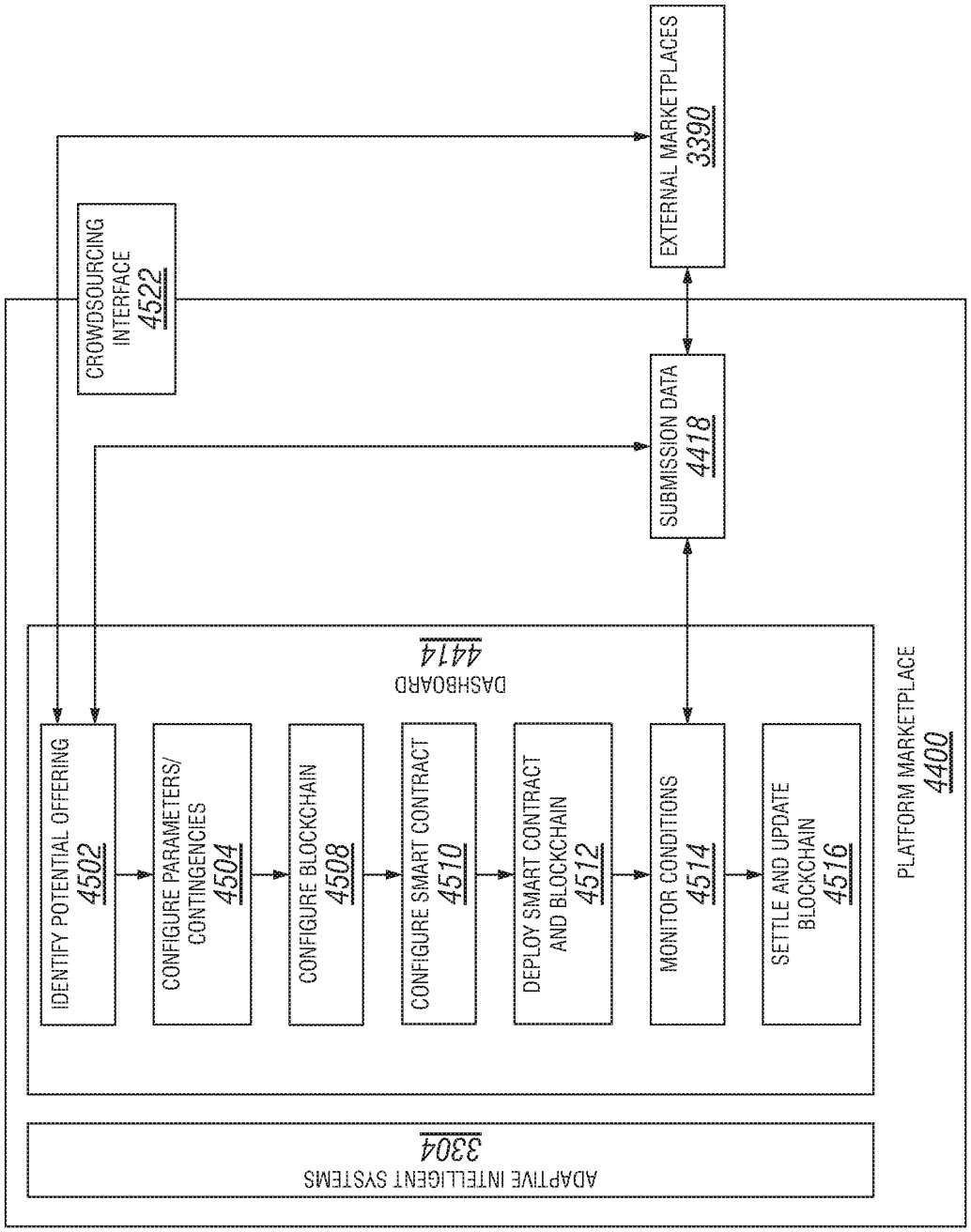
ARTIFICIAL INTELLIGENCE 3448
ADAPTIVE INTELLIGENCE SYSTEMS 3304
SOFTWARE INTERACTION OBSERVATION 3450
PHYSICAL PROCESS OBSERVATION 3458
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306, 3318
ACCESS DATA 3362
PRICING DATA 3364
ASSET AND FACILITY DATA 3320
CLAIMS DATA 3354
WORKER DATA 3322
ACCOUNTING DATA 3358
EVENT DATA 3324
UNDERWRITING DATA 3360
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 44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CONFIGURE PARAMETERS/ CONTINGENCIES
4504
CONFIGURE BLOCKCHAIN
4508
CONFIGURE SMART CONTRACT
4510
DEPLOY SMART CONTRACT AND BLOCKCHAIN
4512
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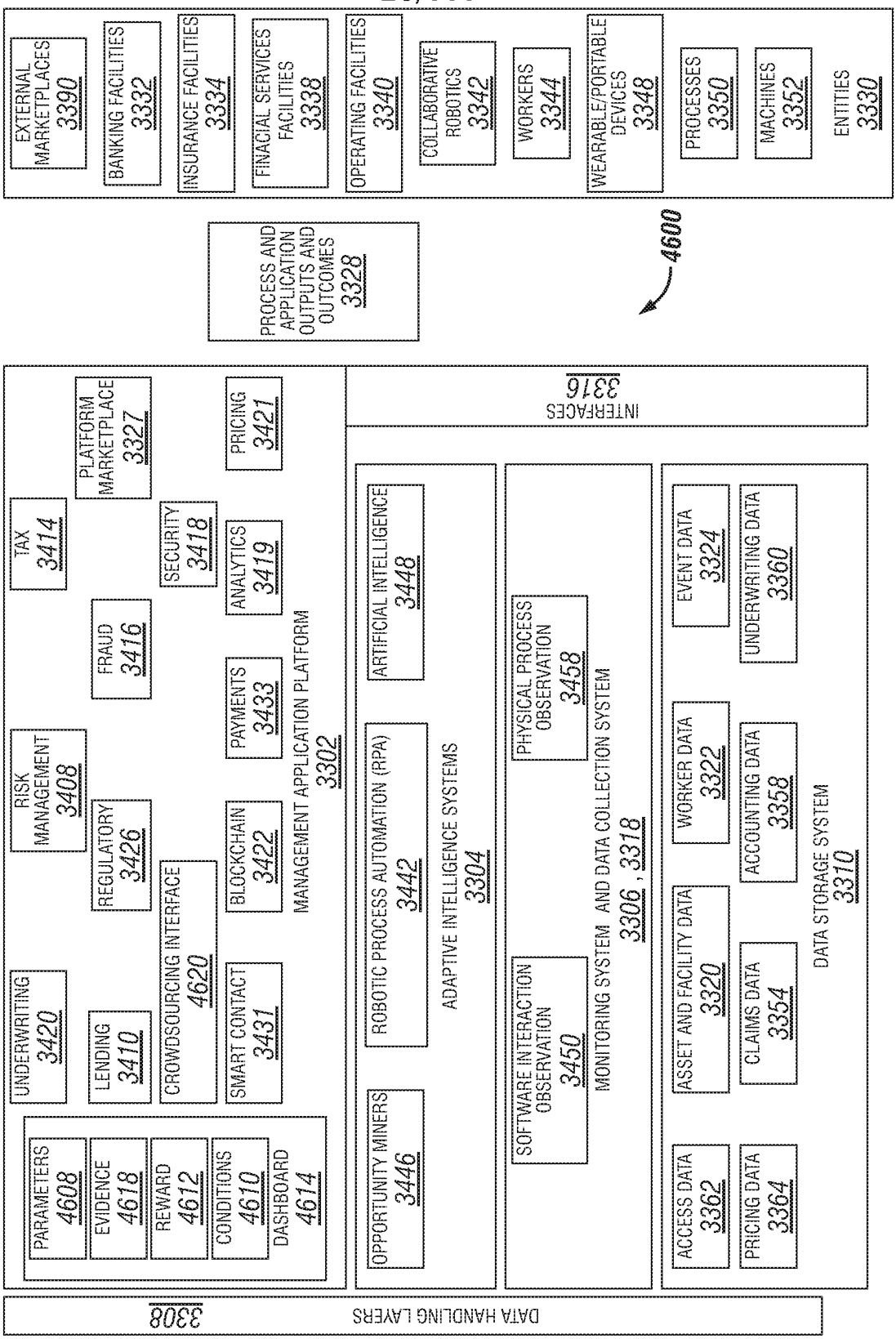
SETTLE AND UPDATE BLOCKCHAIN
4516
PLATFORM MARKETPLACE
4400
ADAPTIVE INTELLIGENT SYSTEMS
3304

FIG. 45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FINACIAL SERVICES FACILITIES 3338
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COLLABORATIVE ROBOTICS 3342
WORKERS 3344
WEARABLE/PORTABLE DEVICES 3348
PROCESSES 3350
MACHINES 3352
ENTITIES 3330
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PROCESS AND APPLICATION OUTPUTS AND OUTCOMES 3328
INTERFACES 3316
UNDERWRITING 3420
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SECURITY 3418
ANALYTICS 3419
CROWDSOURCING INTERFACE 4620
SMART CONTACT 3431
BLOCKCHAIN 3422
PAYMENTS 3433
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EVIDENCE 4618
REWARD 4612
CONDITIONS 4610
DASHBOARD 4614
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ARTIFICIAL INTELLIGENCE 3448
ADAPTIVE INTELLIGENCE SYSTEMS 3304
SOFTWARE INTERACTION OBSERVATION 3450
PHYSICAL PROCESS OBSERVATION 3458
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EVENT DATA 3324
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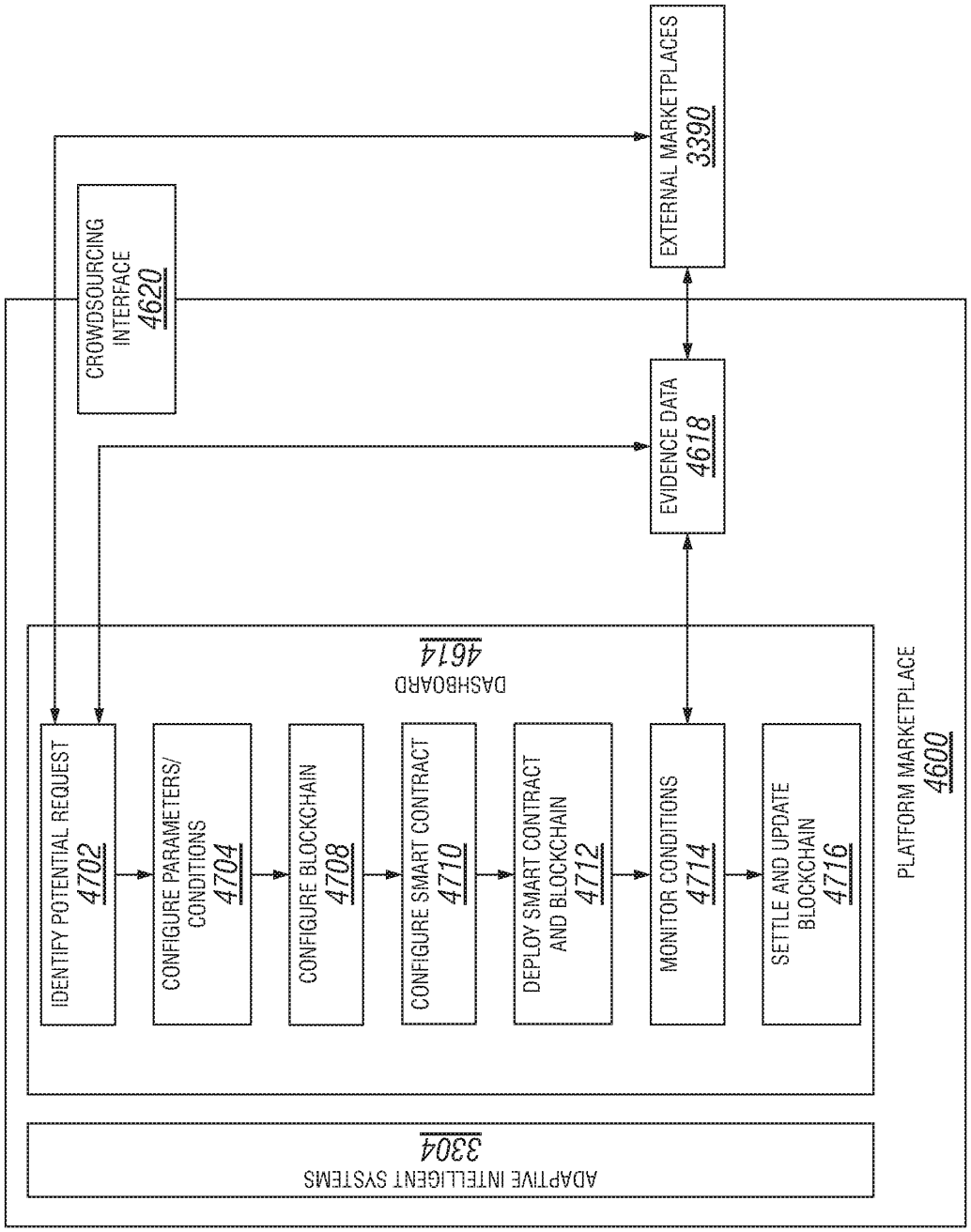
ACCOUNTING DATA 3358
UNDERWRITING DATA 3360
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 46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DASHBOARD
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4704
CONFIGURE BLOCKCHAIN
4708
CONFIGURE SMART CONTRACT
4710
DEPLOY SMART CONTRACT AND BLOCKCHAIN
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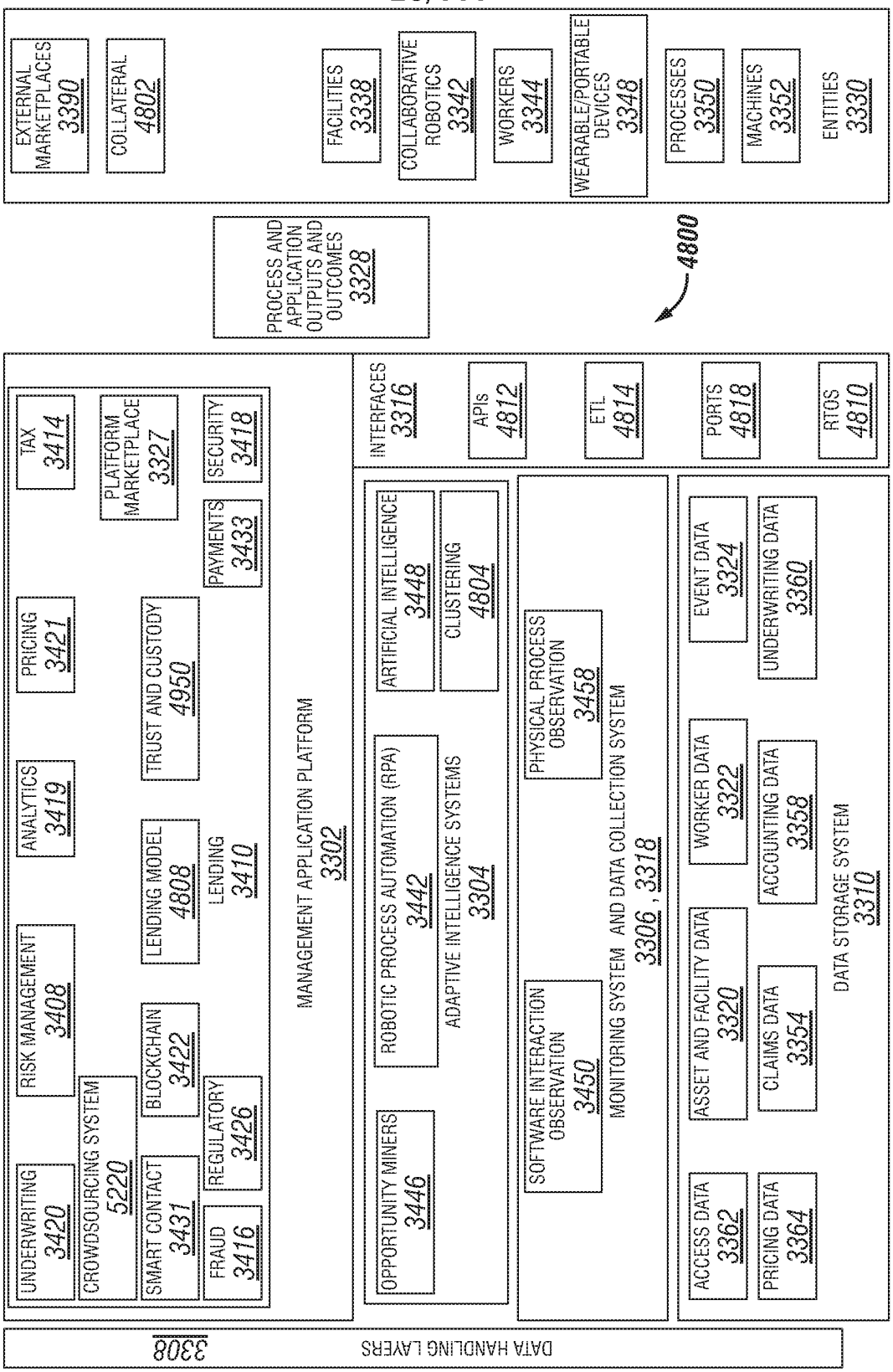
SETTLE AND UPDATE BLOCKCHAIN
4716
PLATFORM MARKETPLACE
4600
ADAPTIVE INTELLIGENT SYSTEMS
3304

FIG. 47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MACHINES 3352
ENTITIES 3330
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RISK MANAGEMENT 3408
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LENDING MODEL 4808
TRUST AND CUSTODY 4950
PLATFORM MARKETPLACE 3327
SECURITY 3418
SMART CONTACT 3431
BLOCKCHAIN 3422
LENDING 3410
PAYMENTS 3433
FRAUD 3416
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MANAGEMENT APPLICATION PLATFORM 3302
INTERFACES 3316
APIs 4812
ETL 4814
PORTS 4818
RTOS 4810
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ROBOTIC PROCESS AUTOMATION (RPA) 3442
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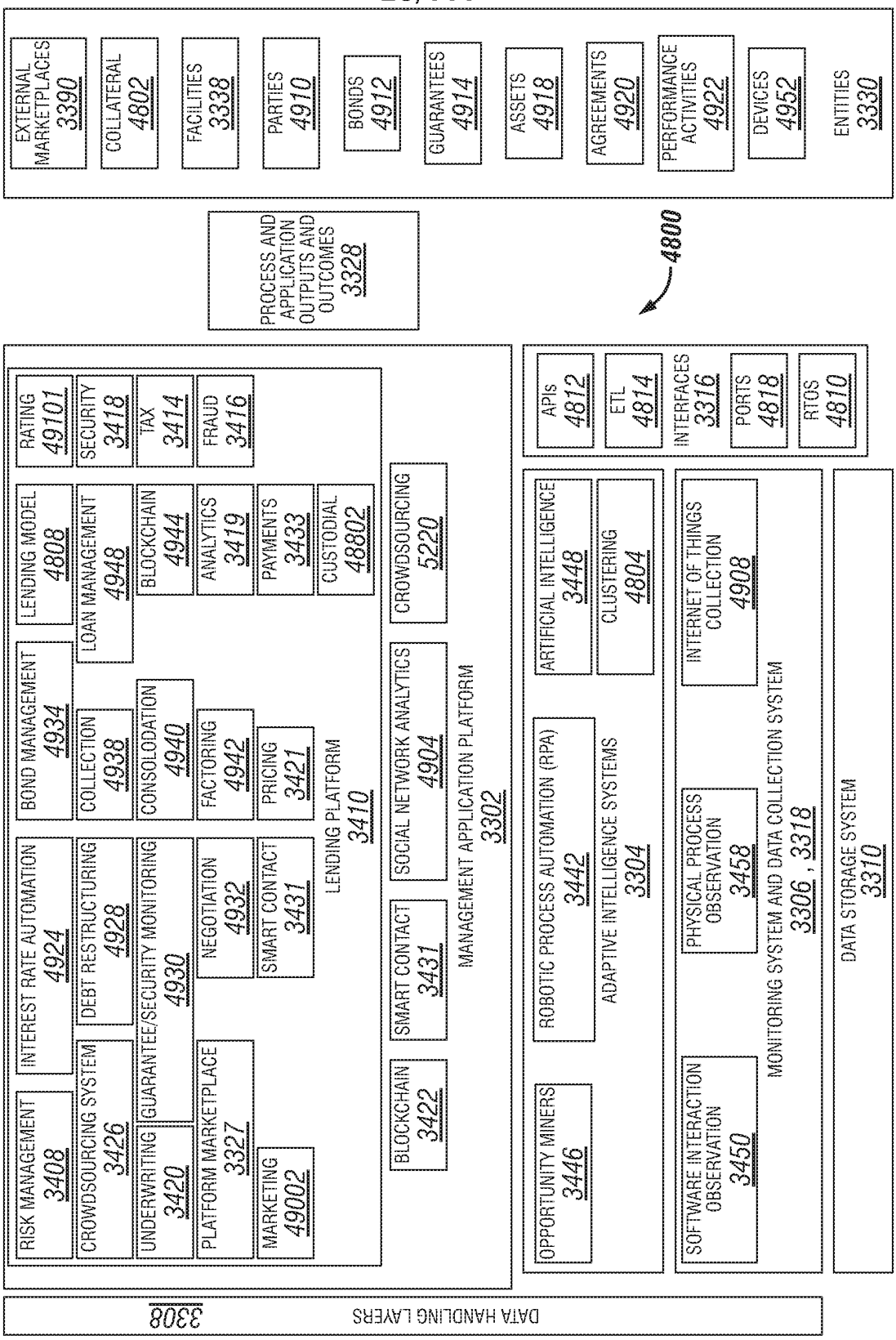
CLUSTERING 4804
ADAPTIVE INTELLIGENCE SYSTEMS 3304
PHYSICAL PROCESS OBSERVATION 3458
SOFTWARE INTERACTION OBSERVATION 3450
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306, 3318
EVENT DATA 3324
UNDERWRITING DATA 3360
ACCESS DATA 3362
ASSET AND FACILITY DATA 3320
WORKER DATA 3322
ACCOUNTING DATA 3358
PRICING DATA 3364
CLAIMS DATA 3354
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 48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PERFORMANCE ACTIVITIES 4922
DEVICES 4952
ENTITIES 3330
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ETL 4814
INTERFACES 3316
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BOND MANAGEMENT 4934
LENDING MODEL 4808
RATING 49101
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DEBT RESTRUCTURING 4928
COLLECTION 4938
LOAN MANAGEMENT 4948
SECURITY 3418
UNDERWRITING 3420
GUARANTEE/SECURITY MONITORING 4930
CONSOLODATION 4940
BLOCKCHAIN 4944
TAX 3414
PLATFORM MARKETPLACE 3327
NEGOTIATION 4932
FACTORING 4942
ANALYTICS 3419
FRAUD 3416
MARKETING 49002
SMART CONTACT 3431
PRICING 3421
PAYMENTS 3433
CUSTODIAL 48802
LENDING PLATFORM 3410
BLOCKCHAIN 3422
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SOCIAL NETWORK ANALYTICS 4904
CROWDSOURCING 5220
MANAGEMENT APPLICATION PLATFORM 3302
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ARTIFICIAL INTELLIGENCE 3448
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SOFTWARE INTERACTION OBSERVATION 3450
PHYSICAL PROCESS OBSERVATION 3458
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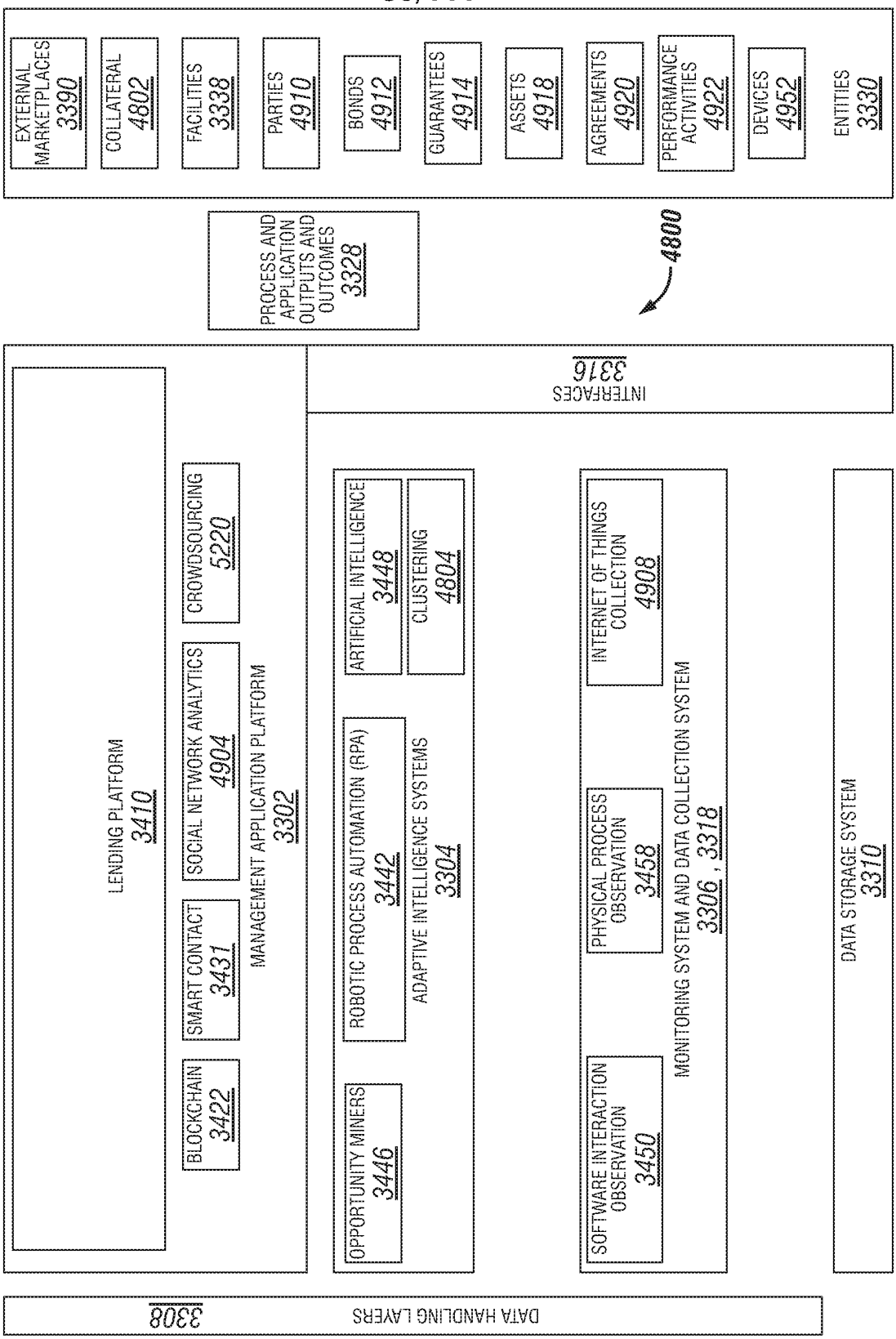
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 49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DEVICES 4952
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LENDING PLATFORM 3410
BLOCKCHAIN 3422
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ARTIFICIAL INTELLIGENCE 3448
CLUSTERING 4804
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SOFTWARE INTERACTION OBSERVATION 3450
PHYSICAL PROCESS OBSERVATION 3458
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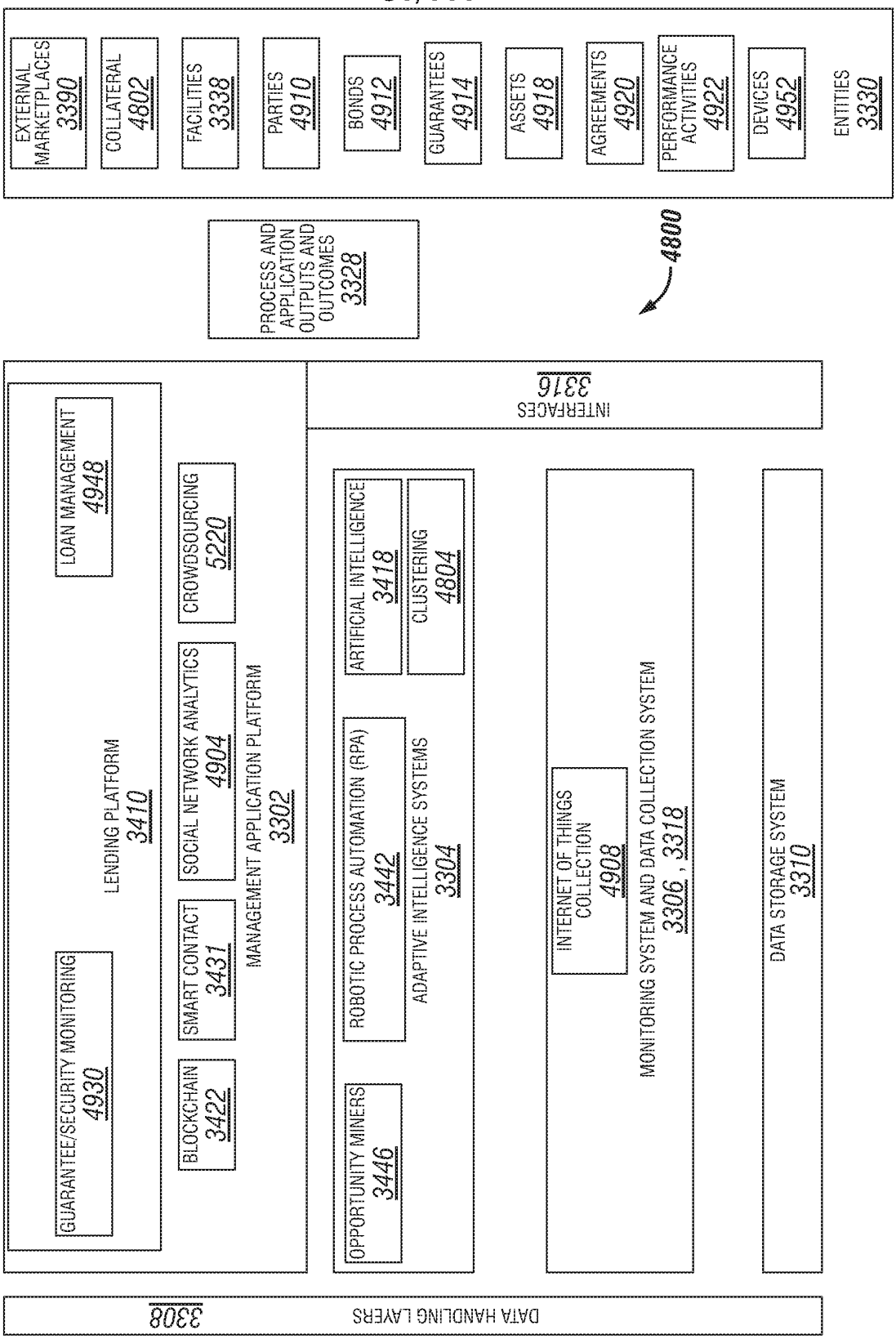
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306 , 3318
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 50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SMART CONTACT 3431
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LENDING PLATFORM 3410
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CLUSTERING 4804
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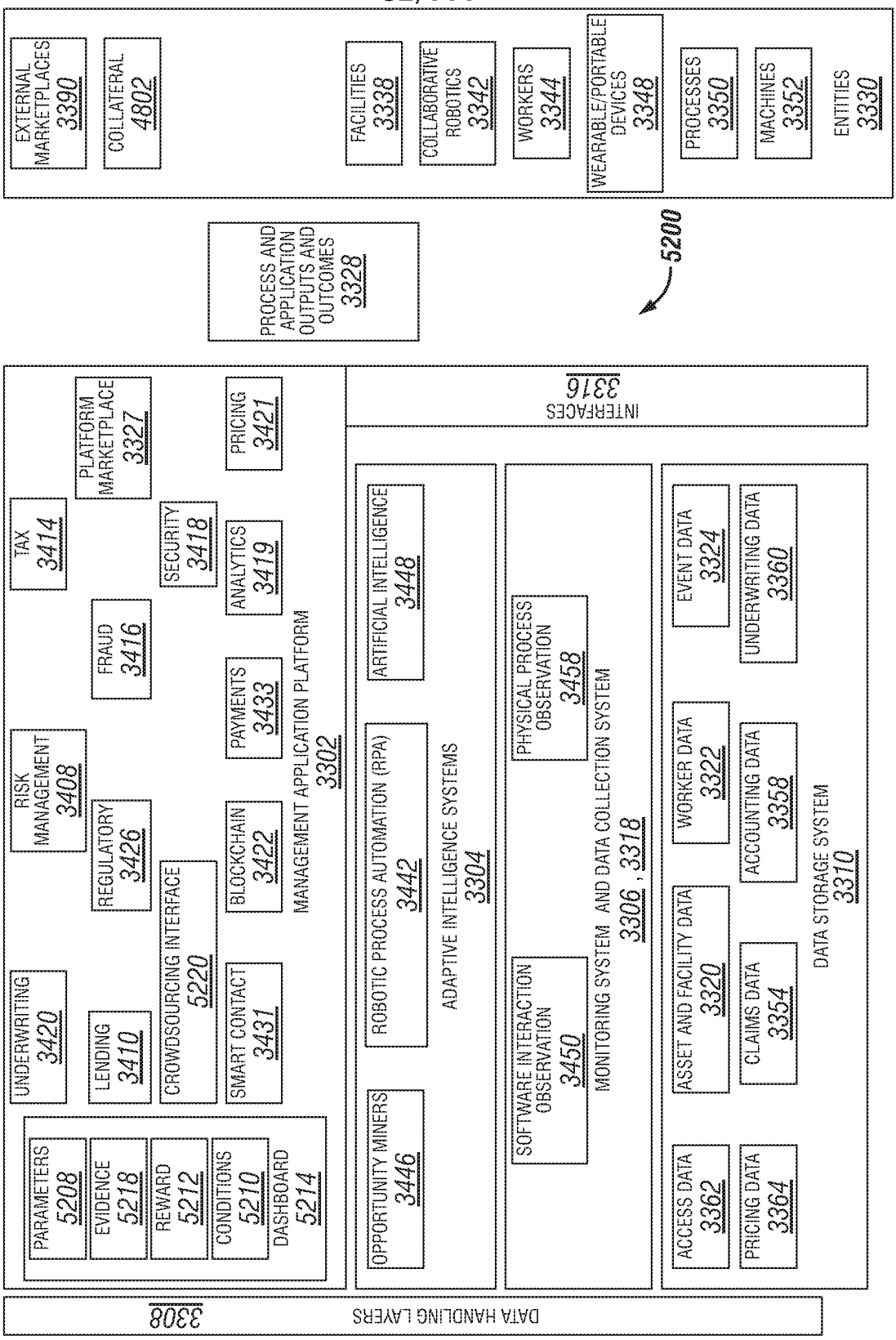
ADAPTIVE INTELLIGENCE SYSTEMS 3304
INTERNET OF THINGS COLLECTION 4908
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306, 3318
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 51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MACHINES 3352
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FRAUD 3416
SECURITY 3418
ANALYTICS 3419
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PAYMENTS 3433
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EVIDENCE 5218
REWARD 5212
CONDITIONS 5210
DASHBOARD 5214
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ASSET AND FACILITY DATA 3320
WORKER DATA 3322
EVENT DATA 3324
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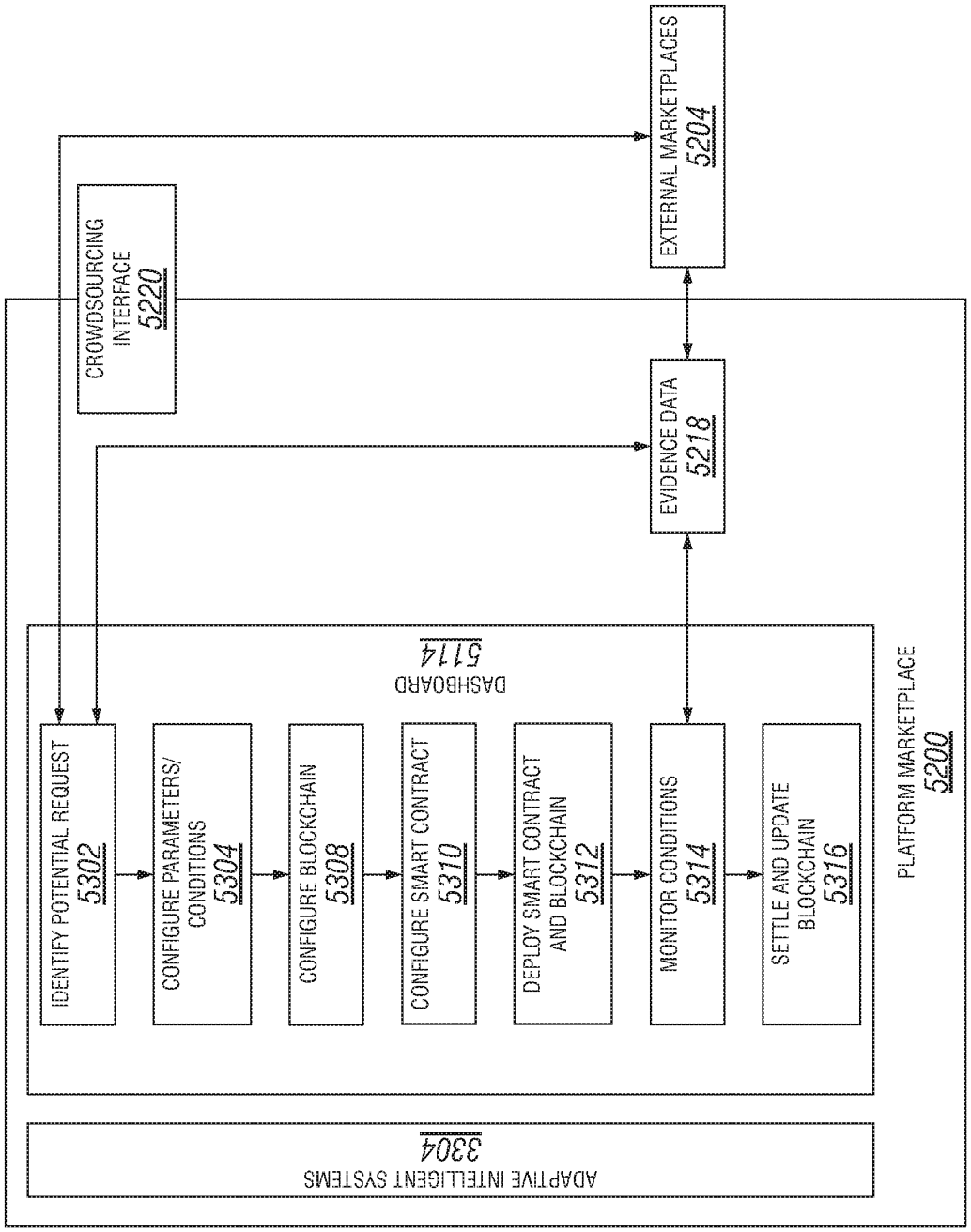
ACCOUNTING DATA 3358
UNDERWRITING DATA 3360
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 52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5304
CONFIGURE BLOCKCHAIN
5308
CONFIGURE SMART CONTRACT
5310
DEPLOY SMART CONTRACT AND BLOCKCHAIN
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MONITOR CONDITIONS
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SETTLE AND UPDATE BLOCKCHAIN
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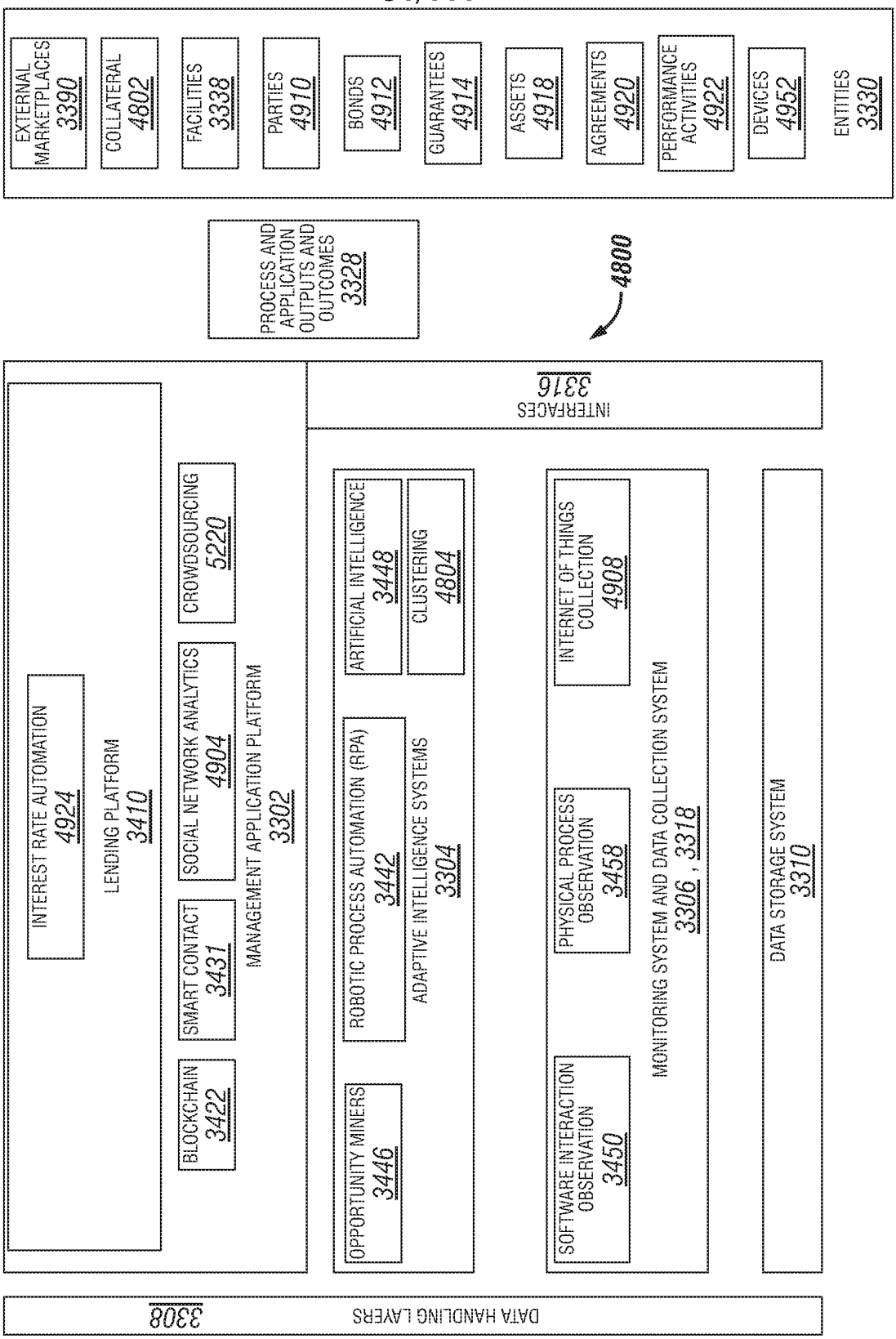
PLATFORM MARKETPLACE
5200
ADAPTIVE INTELLIGENT SYSTEMS
3304

FIG. 53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DEVICES 4952
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SMART CONTACT 3431
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MANAGEMENT APPLICATION PLATFORM 3302
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SOFTWARE INTERACTION OBSERVATION 3450
PHYSICAL PROCESS OBSERVATION 3458
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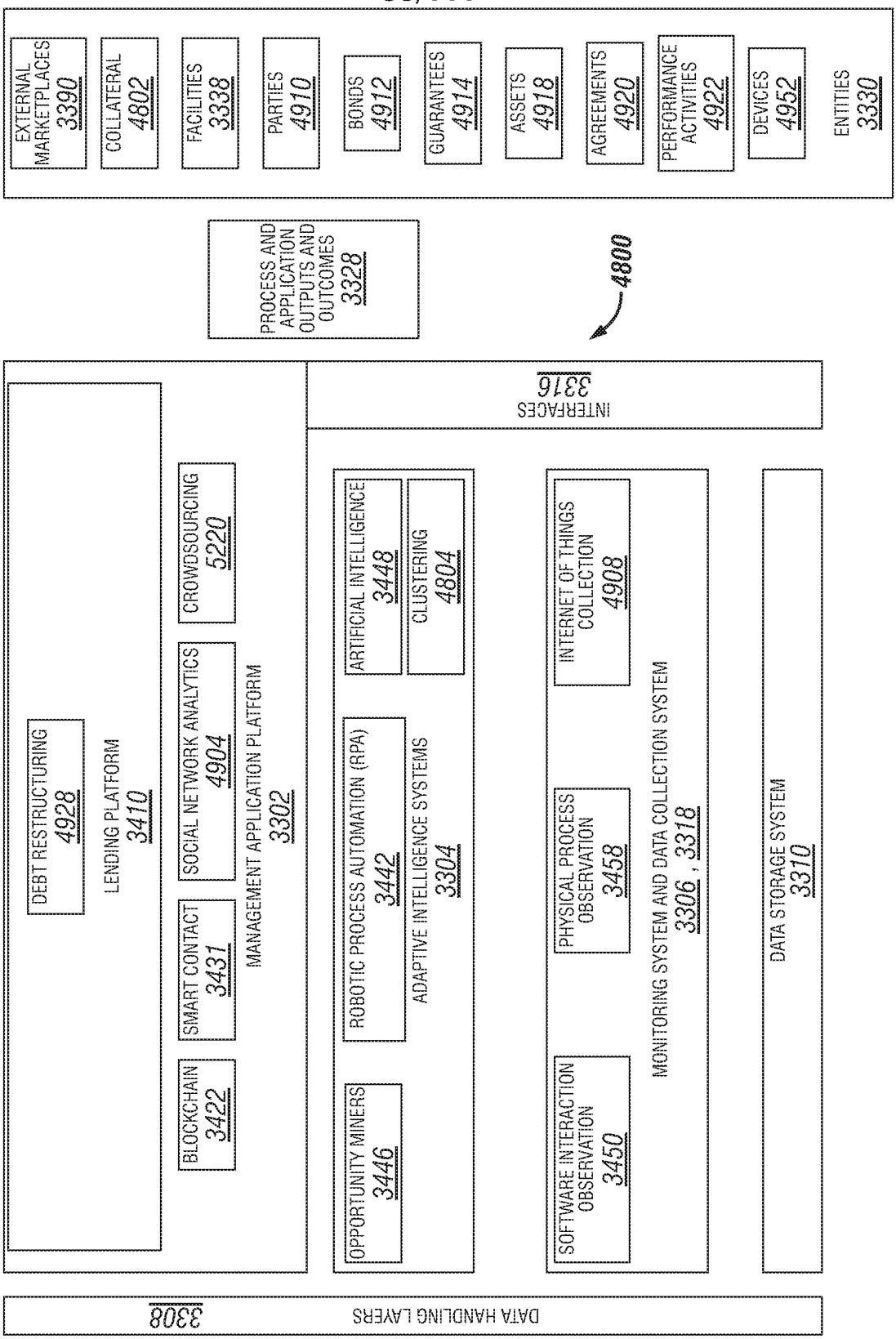
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306 , 3318
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 54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PERFORMANCE ACTIVITIES 4922
DEVICES 4952
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LENDING PLATFORM 3410
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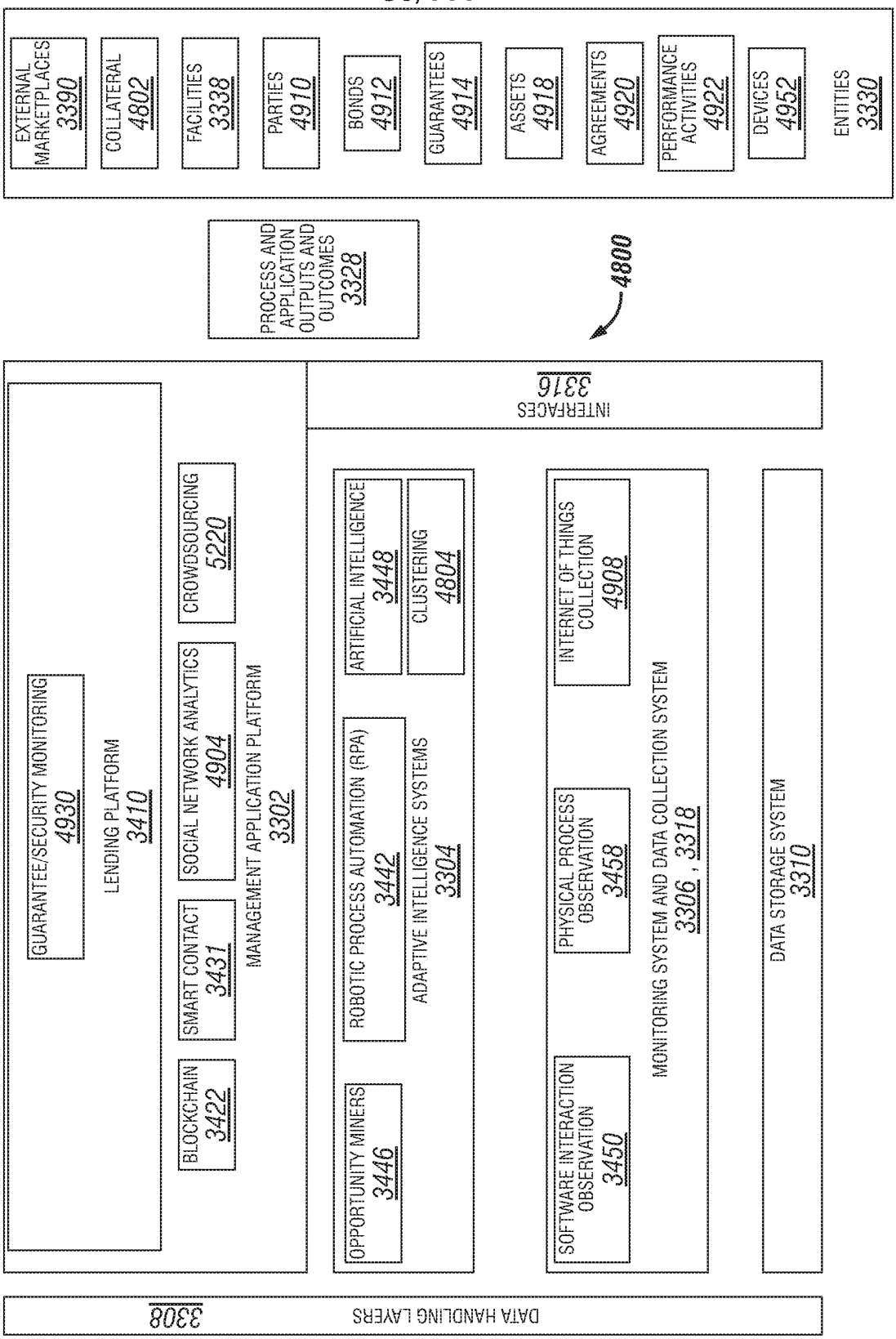
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 55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BLOCKCHAIN 3422
SMART CONTACT 3431
SOCIAL NETWORK ANALYTICS 4904
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MANAGEMENT APPLICATION PLATFORM 3302
OPPORTUNITY MINERS 3446
ROBOTIC PROCESS AUTOMATION (RPA) 3442
ARTIFICIAL INTELLIGENCE 3448
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PHYSICAL PROCESS OBSERVATION 3458
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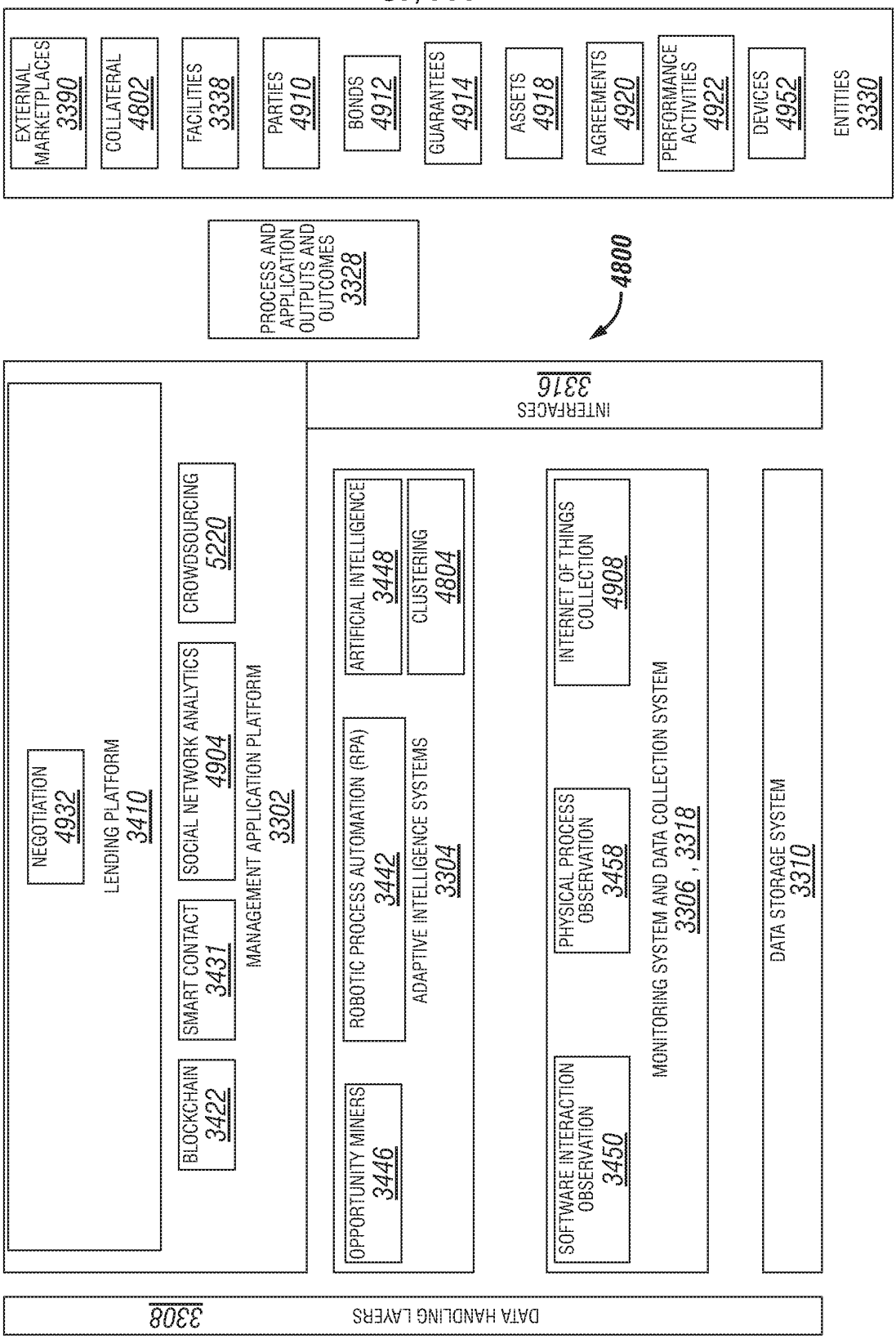
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 56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PHYSICAL PROCESS OBSERVATION 3458
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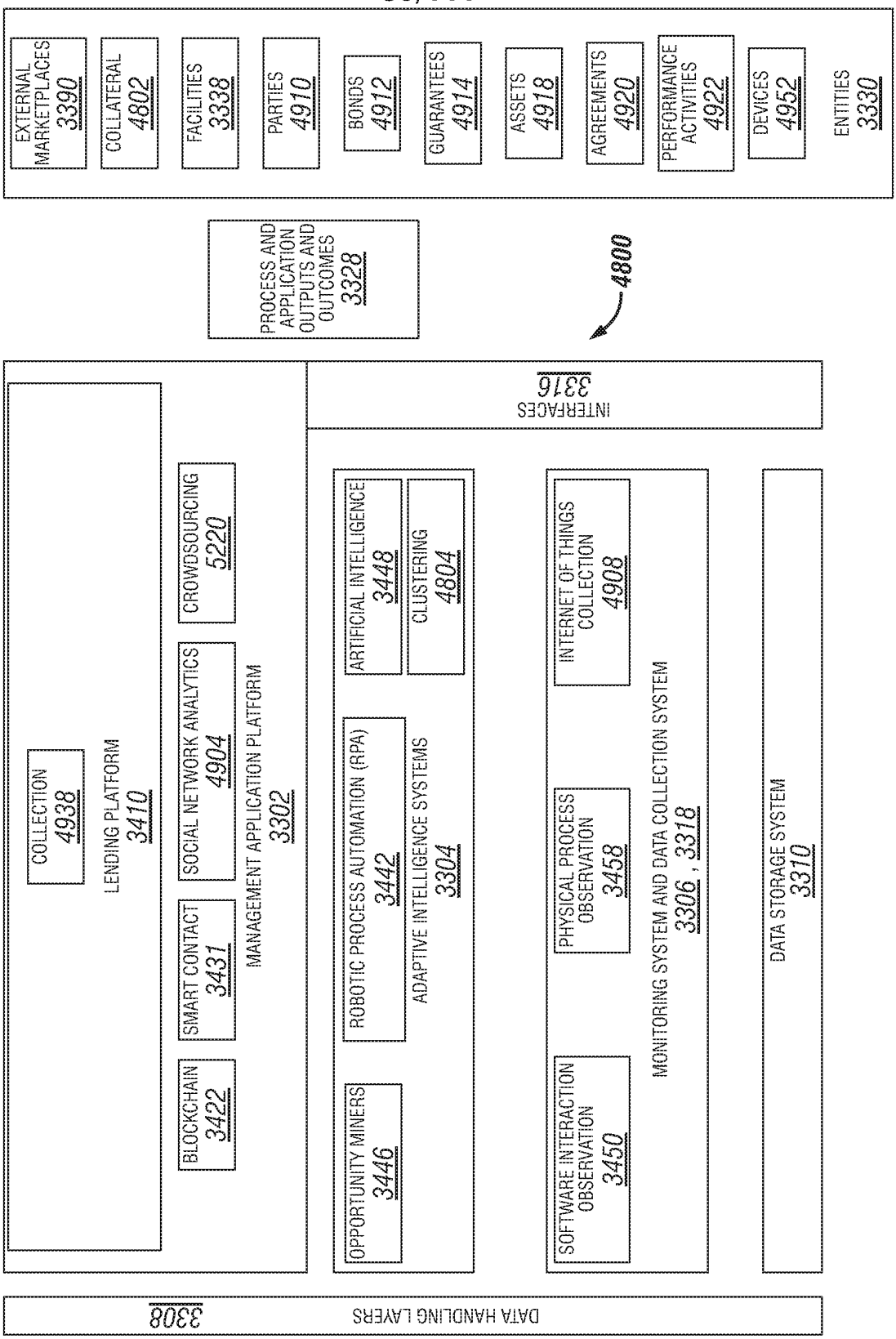
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306 , 3318
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 57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ADAPTIVE INTELLIGENCE SYSTEMS 3304
SOFTWARE INTERACTION OBSERVATION 3450
PHYSICAL PROCESS OBSERVATION 3458
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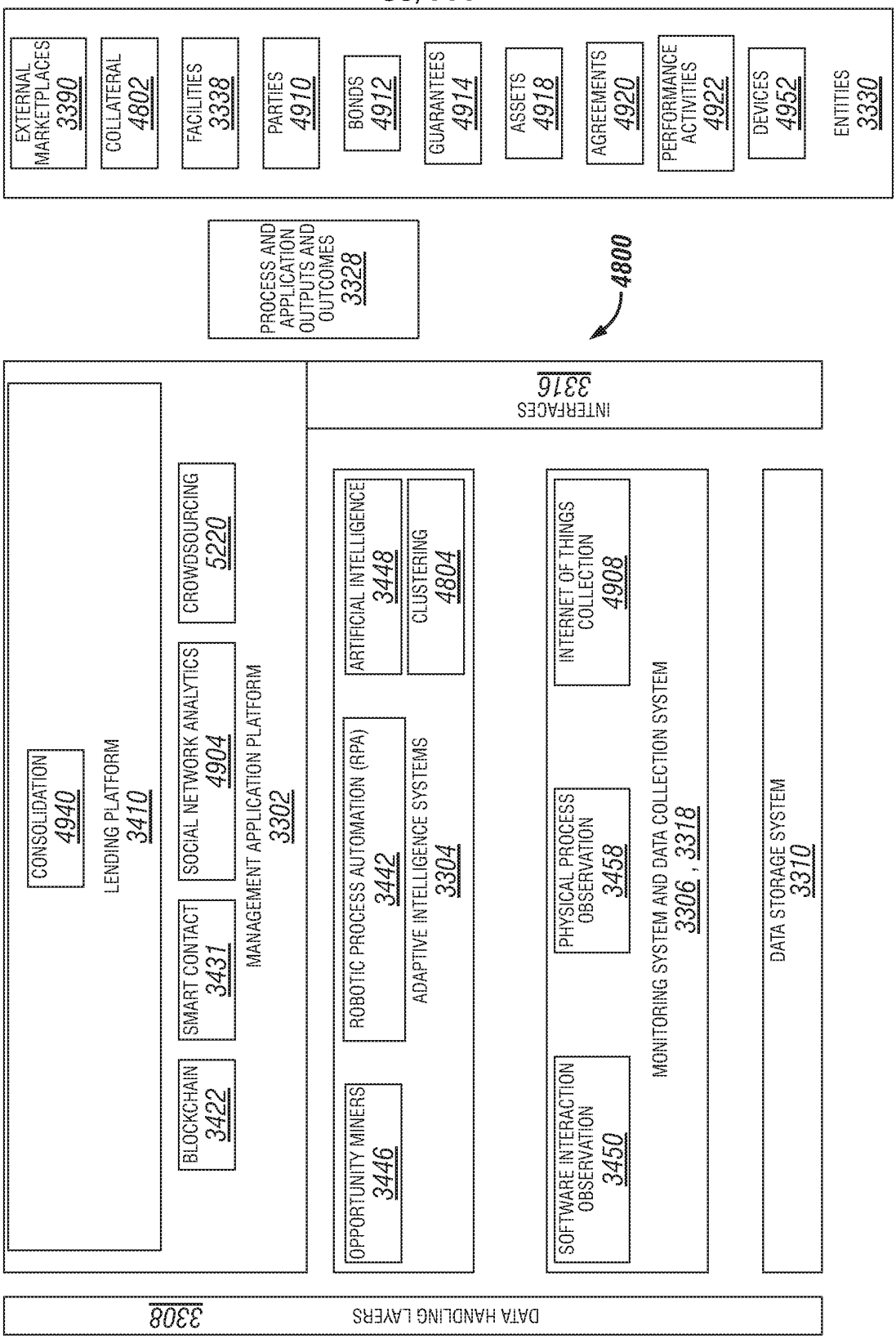
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306 , 3318
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 58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SMART CONTACT 3431
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CROWDSOURCING 5220
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ARTIFICIAL INTELLIGENCE 3448
CLUSTERING 4804
ADAPTIVE INTELLIGENCE SYSTEMS 3304
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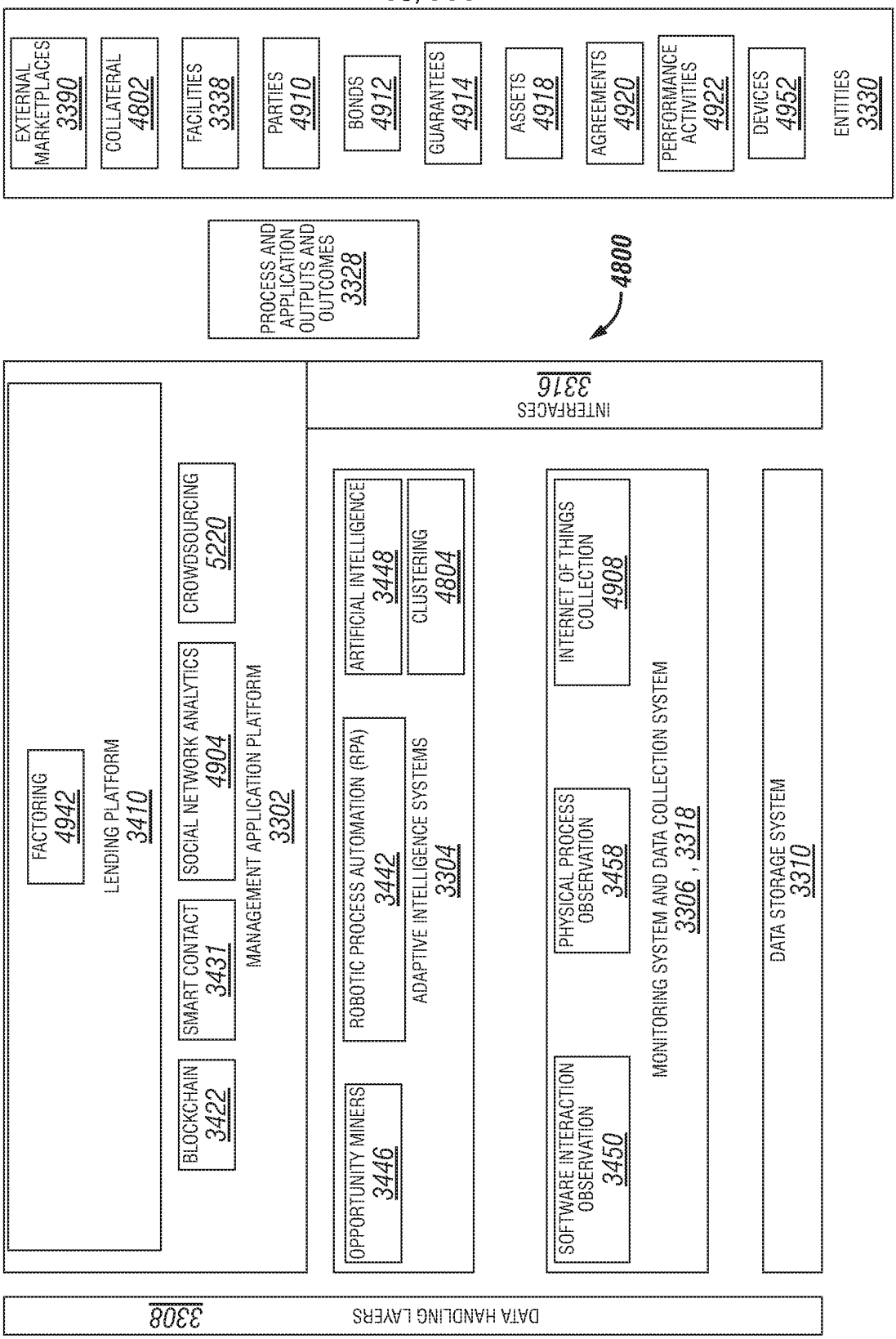
PHYSICAL PROCESS OBSERVATION 3458
INTERNET OF THINGS COLLECTION 4908
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306 , 3318
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 59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CLUSTERING 4804
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PHYSICAL PROCESS OBSERVATION 3458
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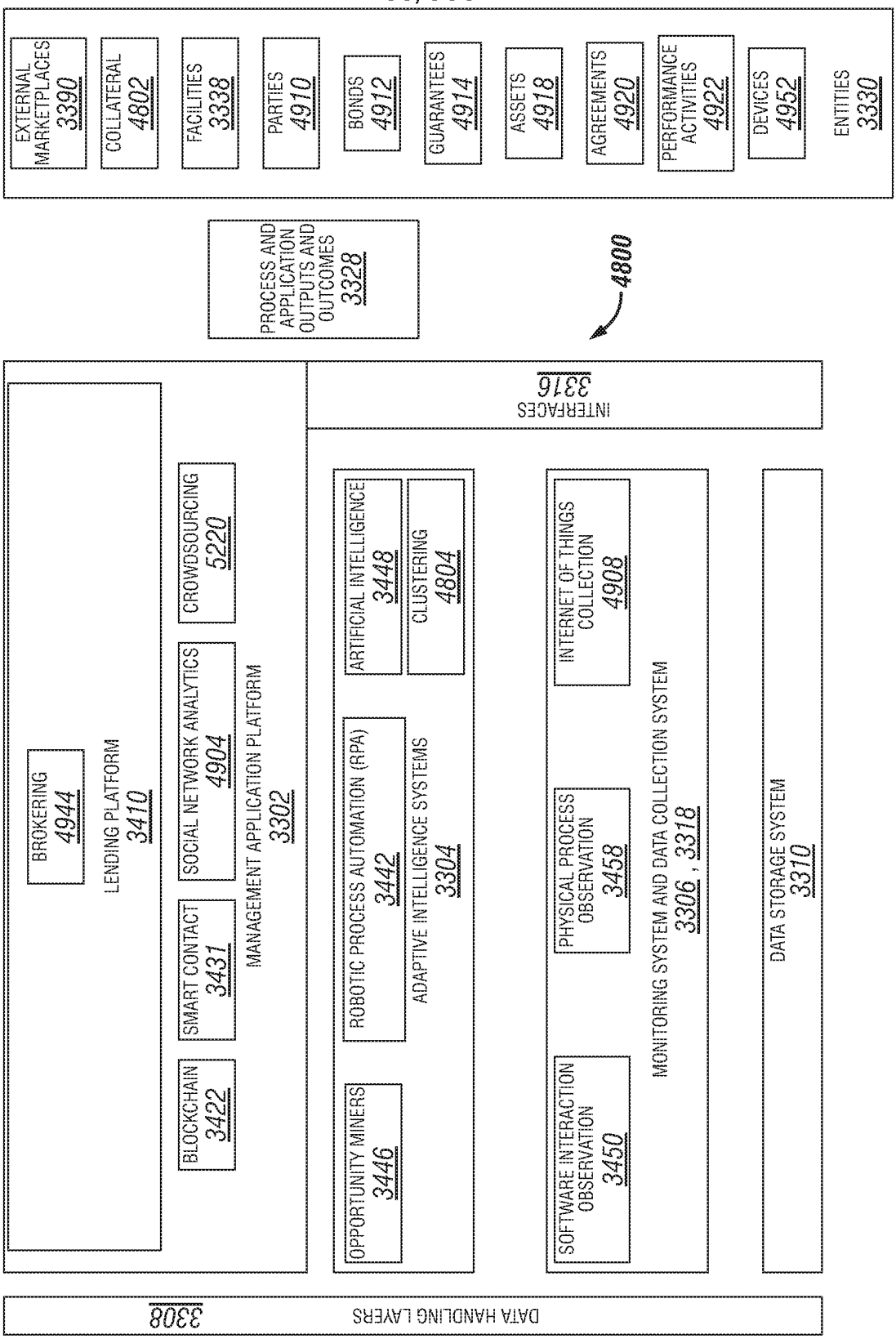
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306 , 3318
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 60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ARTIFICIAL INTELLIGENCE 3448
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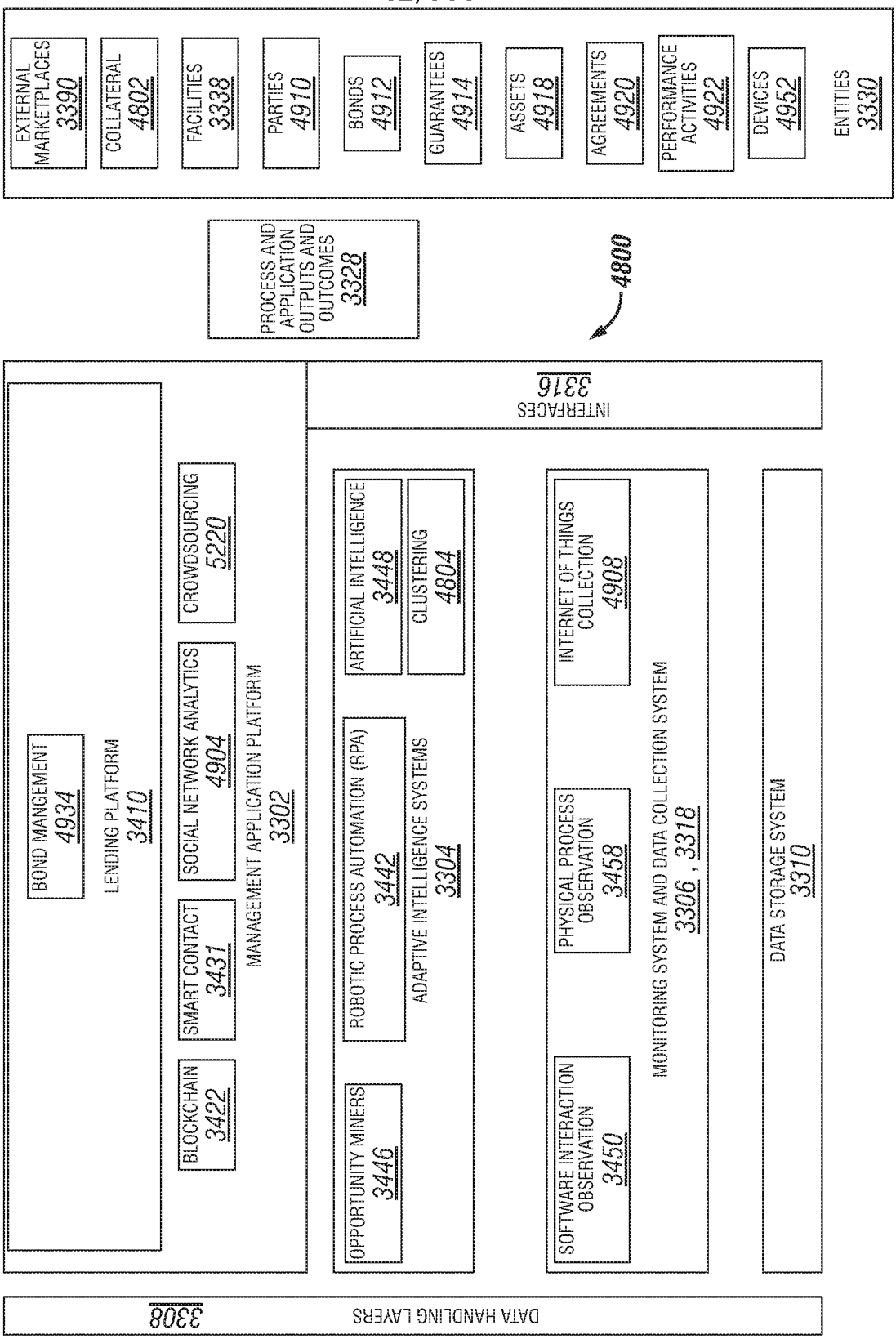
INTERNET OF THINGS COLLECTION 4908
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 61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ARTIFICIAL INTELLIGENCE 3448
CLUSTERING 4804
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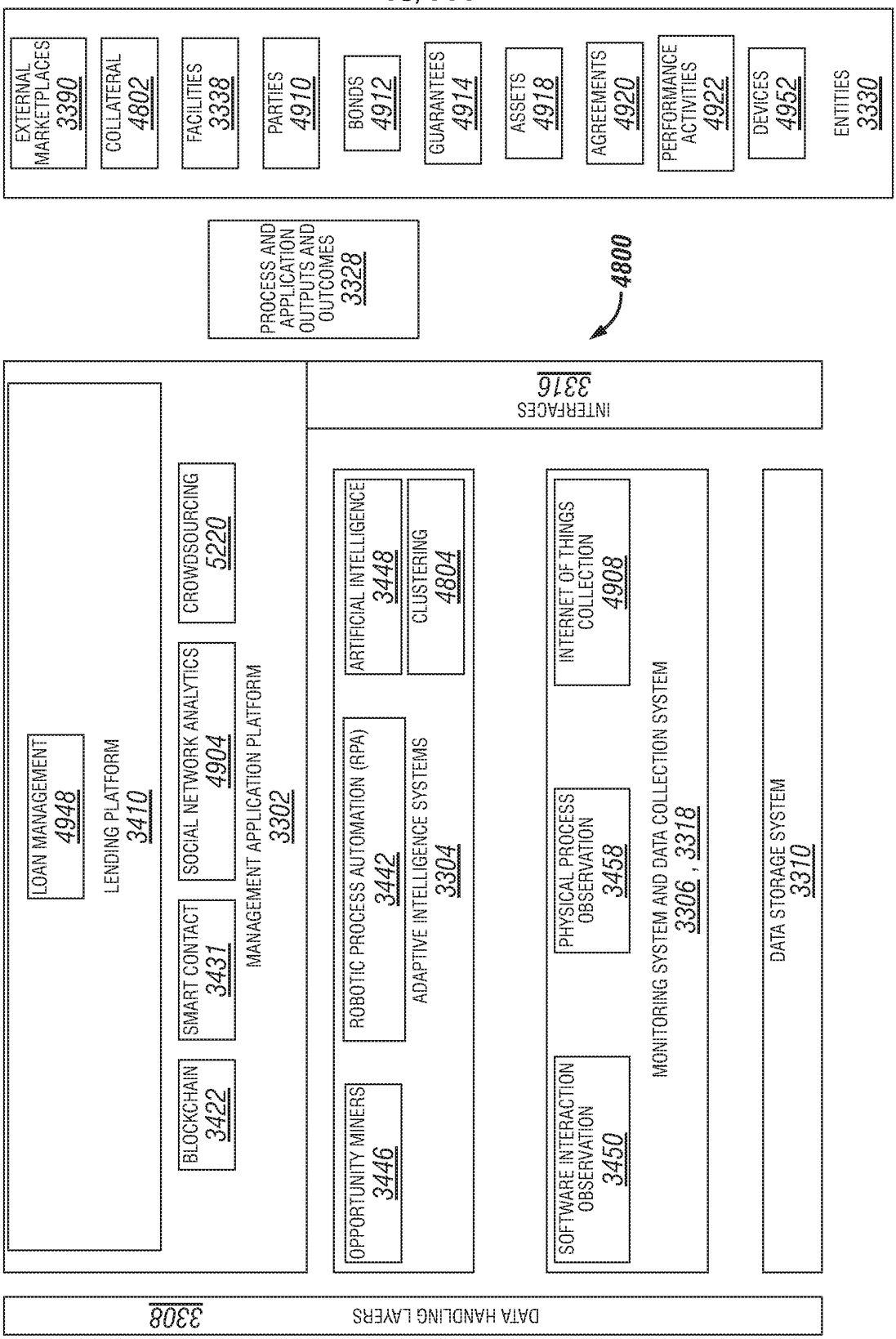
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 62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PHYSICAL PROCESS OBSERVATION 3458
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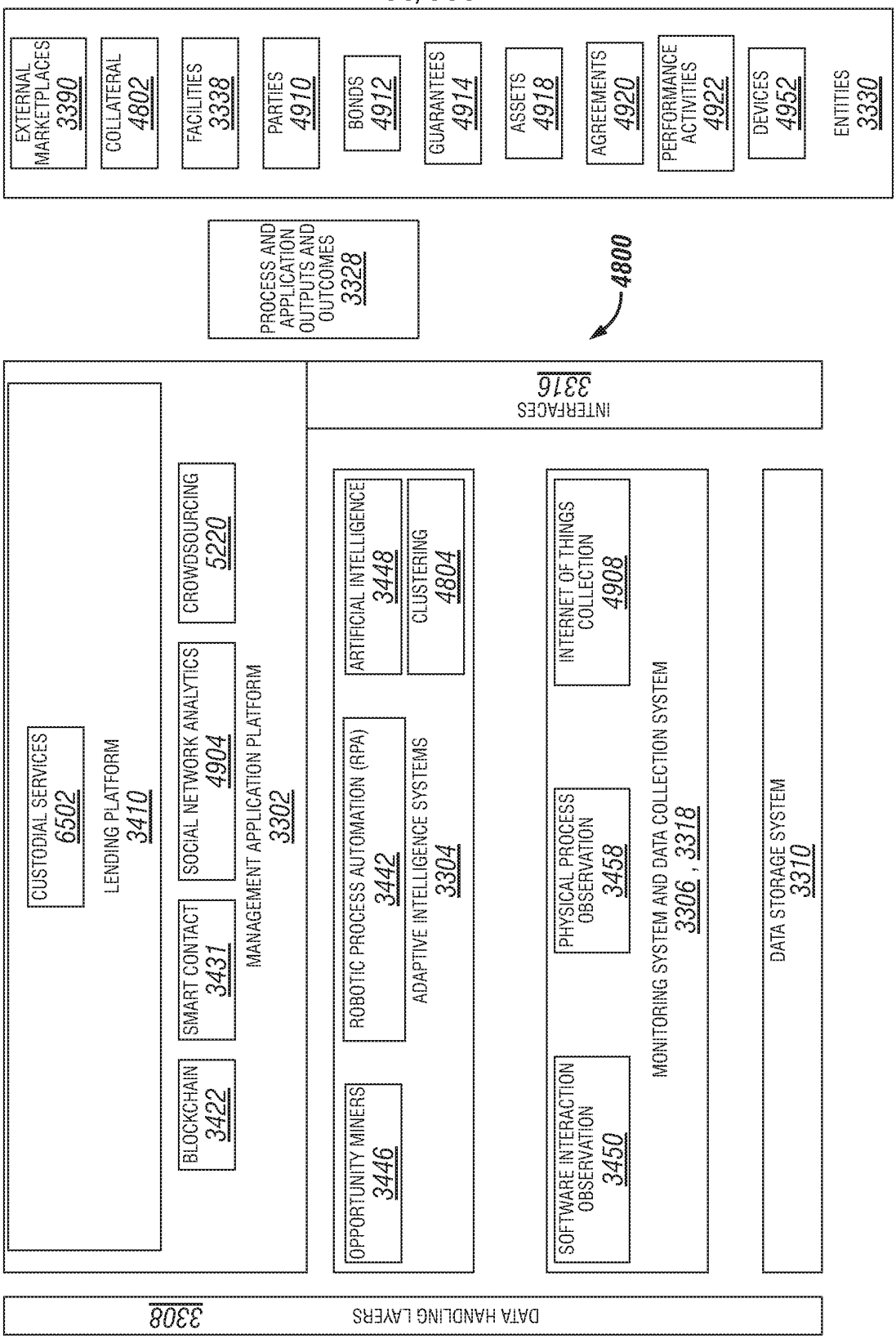
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 63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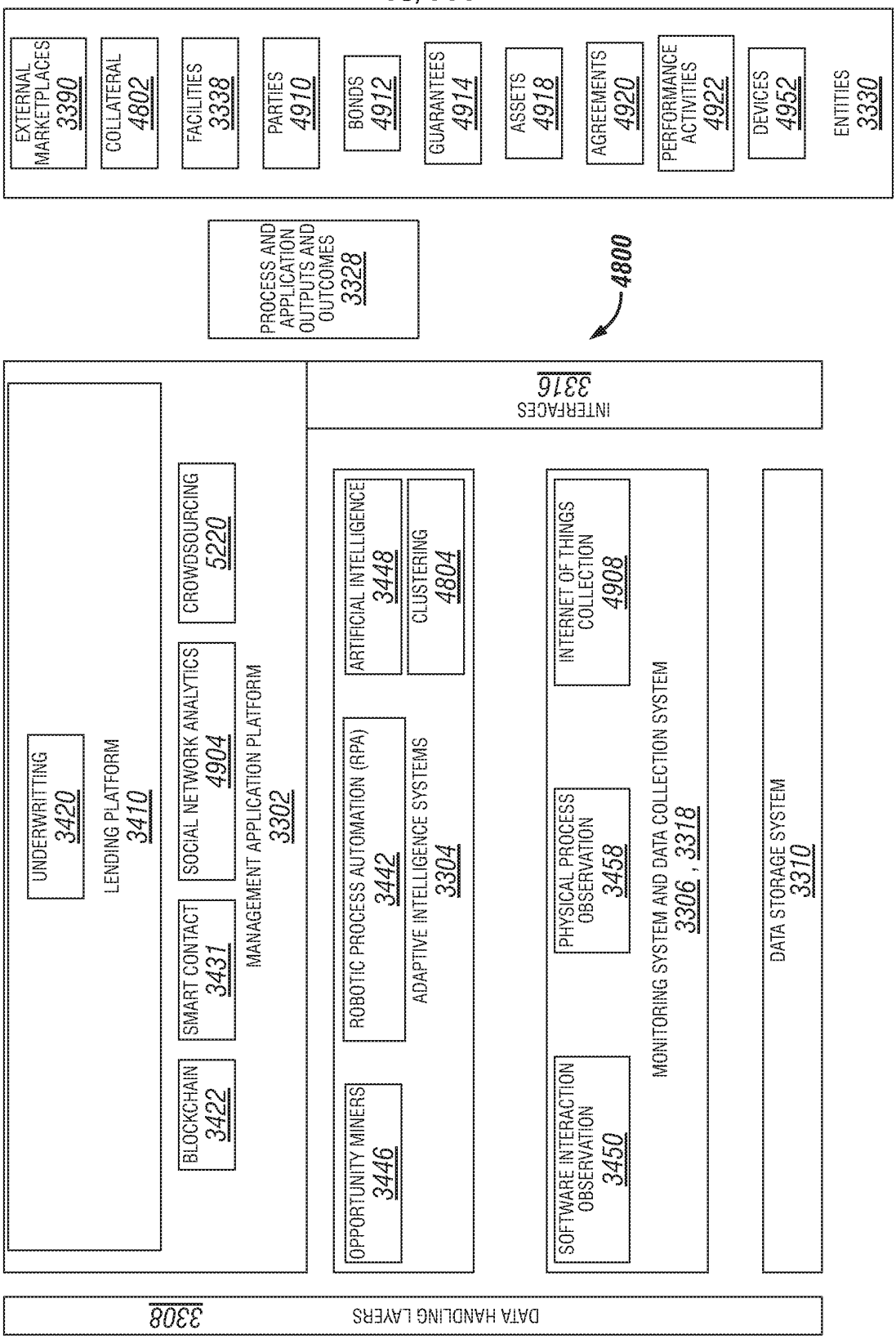
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 64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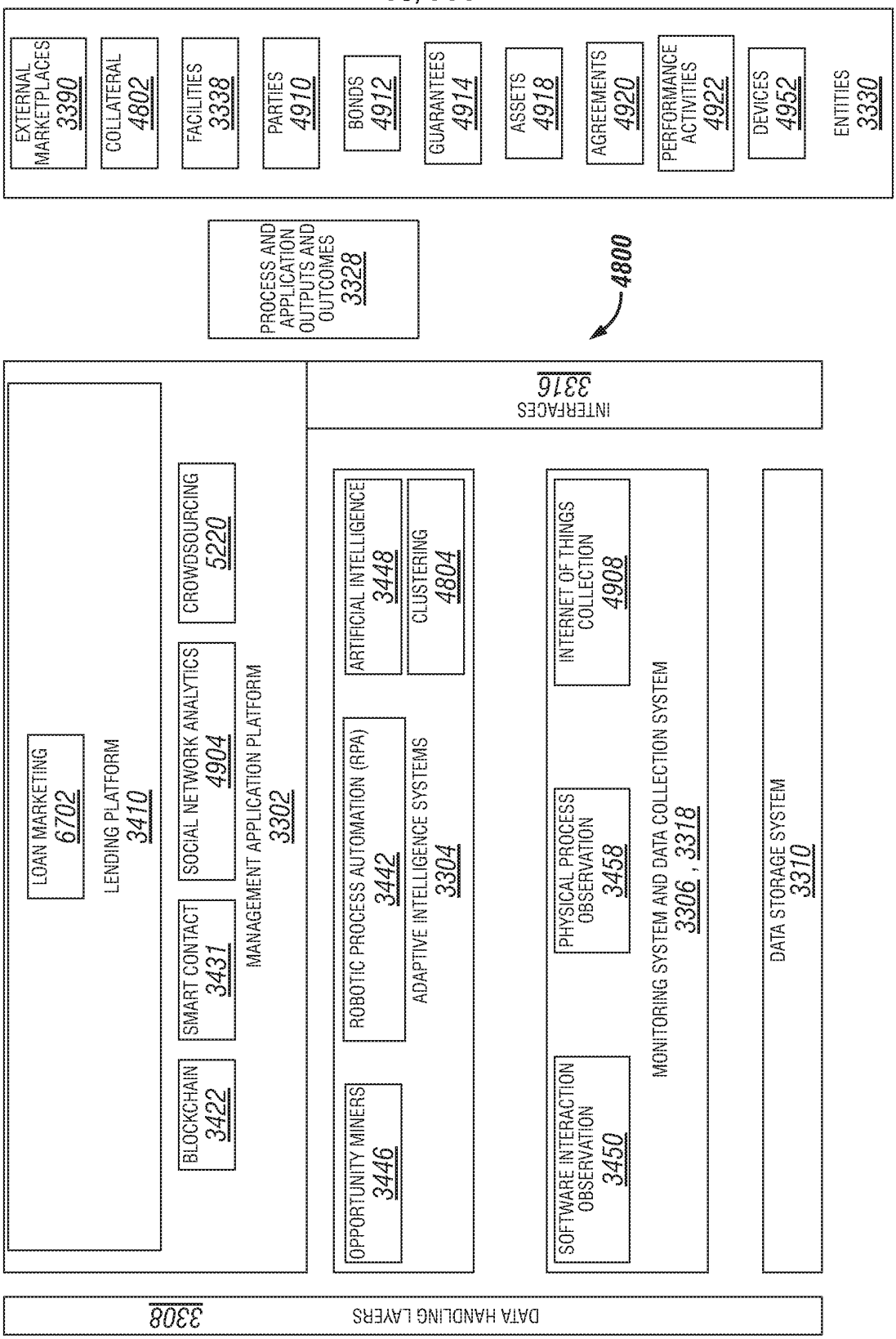
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 65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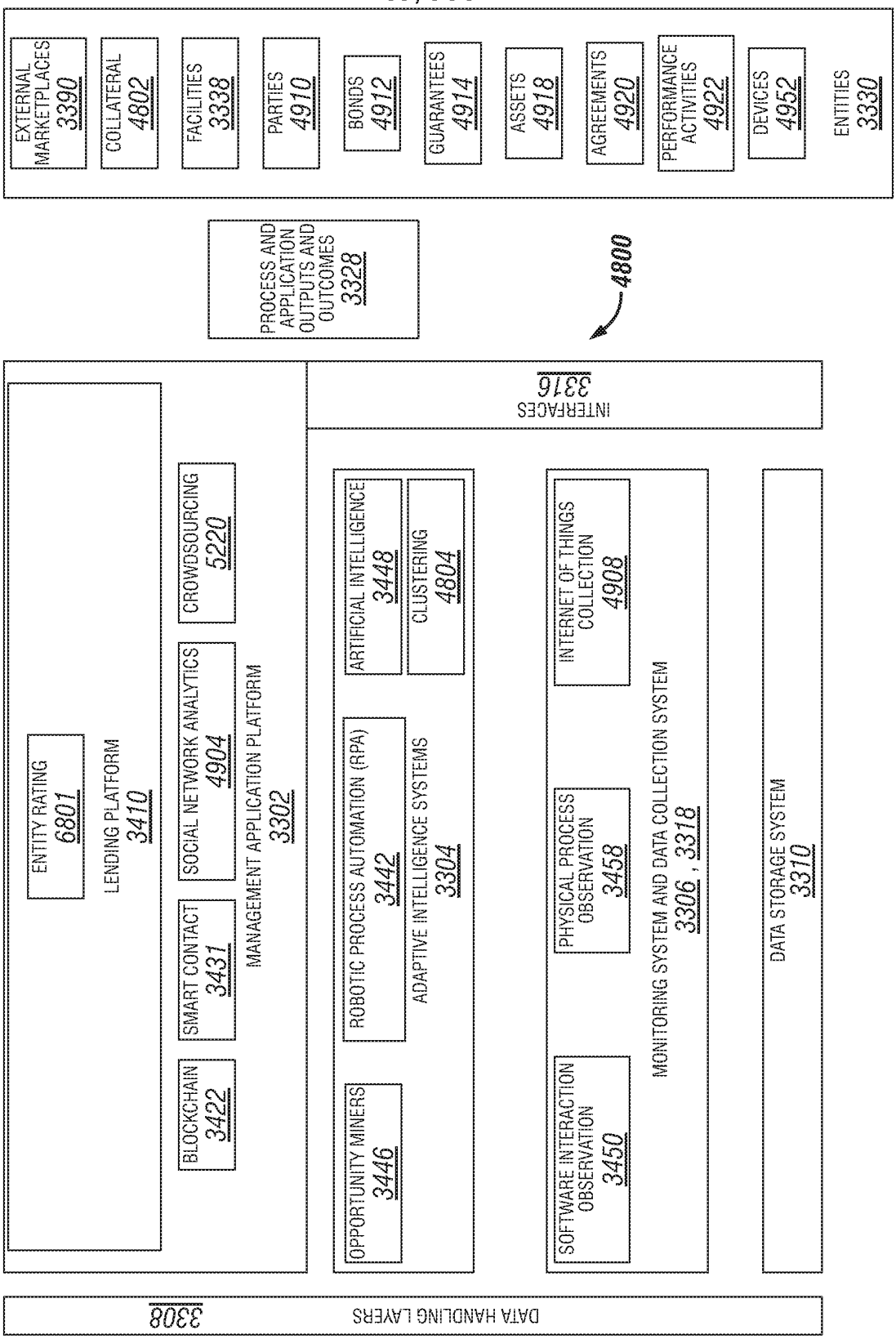
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 66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SMART CONTACT 3431
SOCIAL NETWORK ANALYTICS 4904
CROWDSOURCING 5220
MANAGEMENT APPLICATION PLATFORM 3302
OPPORTUNITY MINERS 3446
ROBOTIC PROCESS AUTOMATION (RPA) 3442
ADAPTIVE INTELLIGENCE SYSTEMS 3304
ARTIFICIAL INTELLIGENCE 3448
CLUSTERING 4804
SOFTWARE INTERACTION OBSERVATION 3450
PHYSICAL PROCESS OBSERVATION 3458
INTERNET OF THINGS COLLECTION 4908
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306 , 3318
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 67

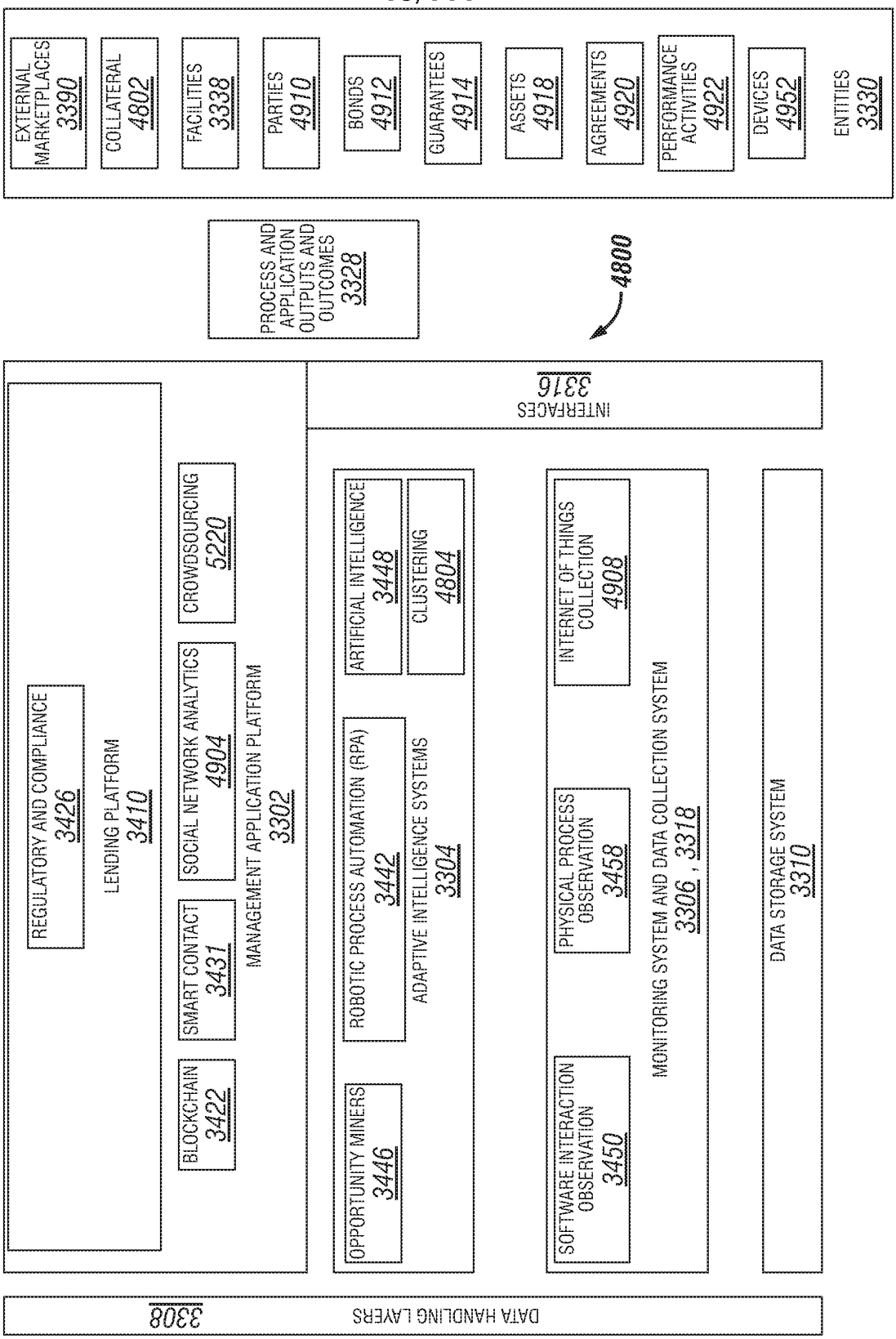
ENTITIES 3330
EXTERNAL MARKETPLACES 3390
COLLATERAL 4802
FACILITIES 3338
PARTIES 4910
BONDS 4912
GUARANTEES 4914
ASSETS 4918
AGREEMENTS 4920
PERFORMANCE ACTIVITIES 4922
DEVICES 4952
PROCESS AND APPLICATION OUTPUTS AND OUTCOMES 3328
4800
INTERFACES 3316
MANAGEMENT APPLICATION PLATFORM 3302
LENDING PLATFORM 3410
REGULATORY AND COMPLIANCE 3426
BLOCKCHAIN 3422
SMART CONTACT 3431
SOCIAL NETWORK ANALYTICS 4904
CROWDSOURCING 5220
ADAPTIVE INTELLIGENCE SYSTEMS 3304
OPPORTUNITY MINERS 3446
ROBOTIC PROCESS AUTOMATION (RPA) 3442
ARTIFICIAL INTELLIGENCE 3448
CLUSTERING 4804
MONITORING SYSTEM AND DATA COLLECTION SYSTEM 3306 , 3318
SOFTWARE INTERACTION OBSERVATION 3450
PHYSICAL PROCESS OBSERVATION 3458
INTERNET OF THINGS COLLECTION 4908
DATA STORAGE SYSTEM 3310
DATA HANDLING LAYERS 3308

FIG. 68

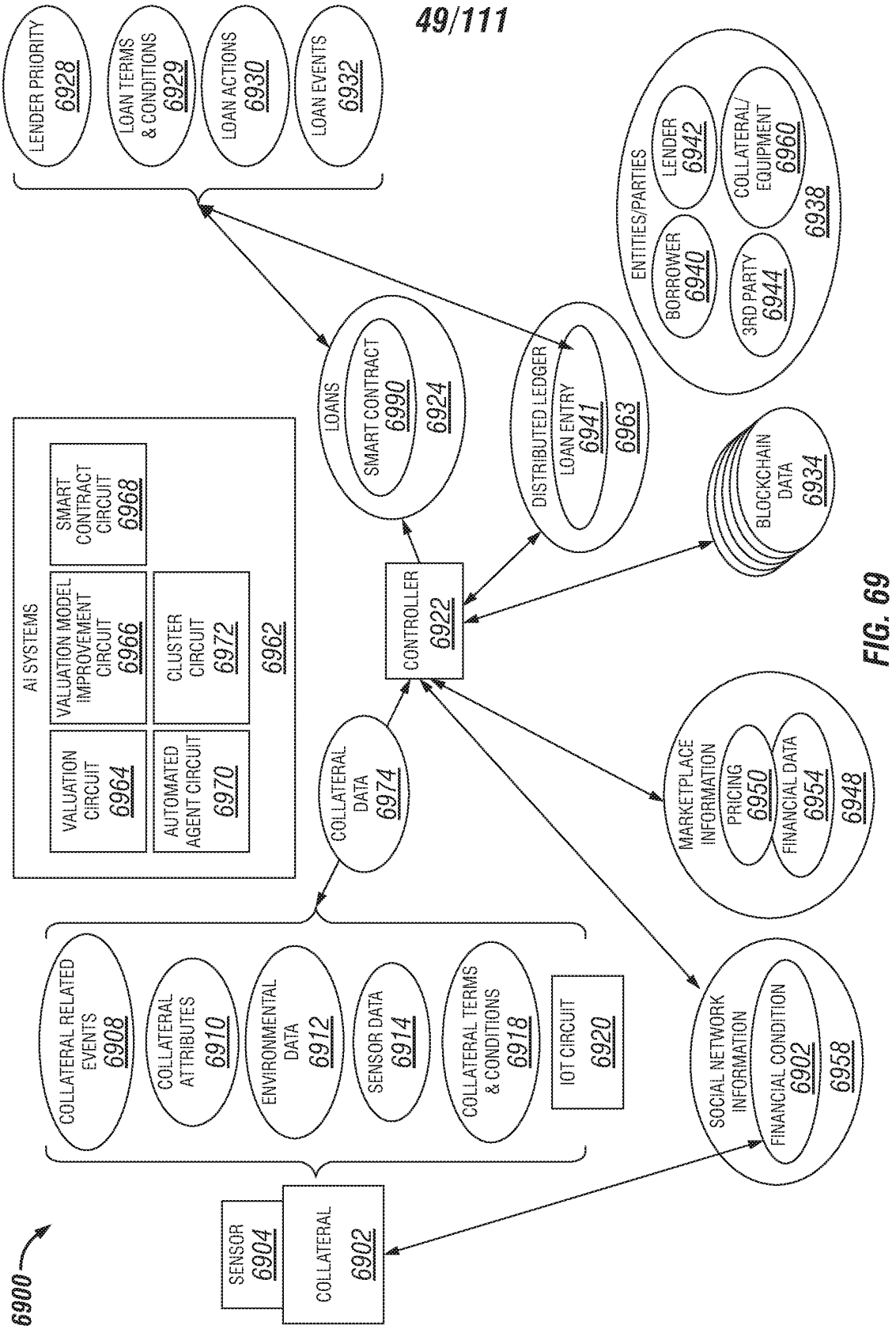
6900
SENSOR 6904
COLLATERAL 6902
COLLATERAL RELATED EVENTS 6908
COLLATERAL ATTRIBUTES 6910
ENVIRONMENTAL DATA 6912
SENSOR DATA 6914
COLLATERAL TERMS & CONDITIONS 6918
IOT CIRCUIT 6920
COLLATERAL DATA 6974
AI SYSTEMS
VALUATION CIRCUIT 6964
VALUATION MODEL IMPROVEMENT CIRCUIT 6966
SMART CONTRACT CIRCUIT 6968
AUTOMATED AGENT CIRCUIT 6970
CLUSTER CIRCUIT 6972
6962
CONTROLLER 6922
LOANS
SMART CONTRACT 6990
6924
LENDER PRIORITY 6928
LOAN TERMS & CONDITIONS 6929
LOAN ACTIONS 6930
LOAN EVENTS 6932
DISTRIBUTED LEDGER
LOAN ENTRY 6941
6963
BLOCKCHAIN DATA 6934
ENTITIES/PARTIES
BORROWER 6940
LENDER 6942
3RD PARTY 6944
COLLATERAL/ EQUIPMENT 6960
6938
MARKETPLACE INFORMATION
PRICING 6950
FINANCIAL DATA 6954
6948
SOCIAL NETWORK INFORMATION
FINANCIAL CONDITION 6902
6958

FIG. 69

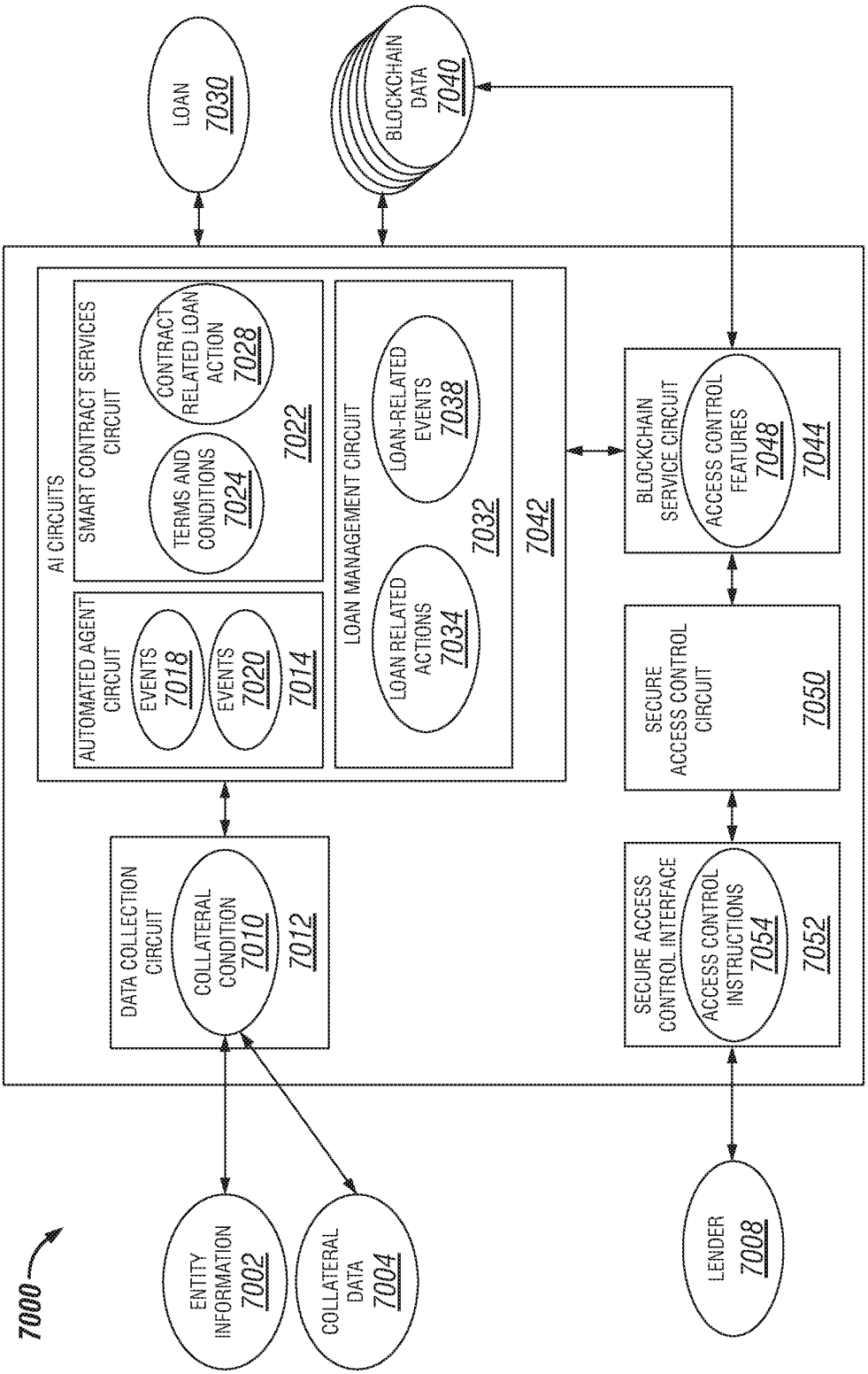
7000
ENTITY INFORMATION 7002
COLLATERAL DATA 7004
LENDER 7008
LOAN 7030
BLOCKCHAIN DATA 7040
AI CIRCUITS
AUTOMATED AGENT CIRCUIT
EVENTS 7018
EVENTS 7020
7014
SMART CONTRACT SERVICES CIRCUIT
TERMS AND CONDITIONS 7024
CONTRACT RELATED LOAN ACTION 7028
7022
LOAN MANAGEMENT CIRCUIT
LOAN RELATED ACTIONS 7034
LOAN-RELATED EVENTS 7038
7032
7042
DATA COLLECTION CIRCUIT
COLLATERAL CONDITION 7010
7012
BLOCKCHAIN SERVICE CIRCUIT
ACCESS CONTROL FEATURES 7048
7044
SECURE ACCESS CONTROL CIRCUIT
7050
SECURE ACCESS CONTROL INTERFACE
ACCESS CONTROL INSTRUCTIONS 7054
7052

FIG. 70

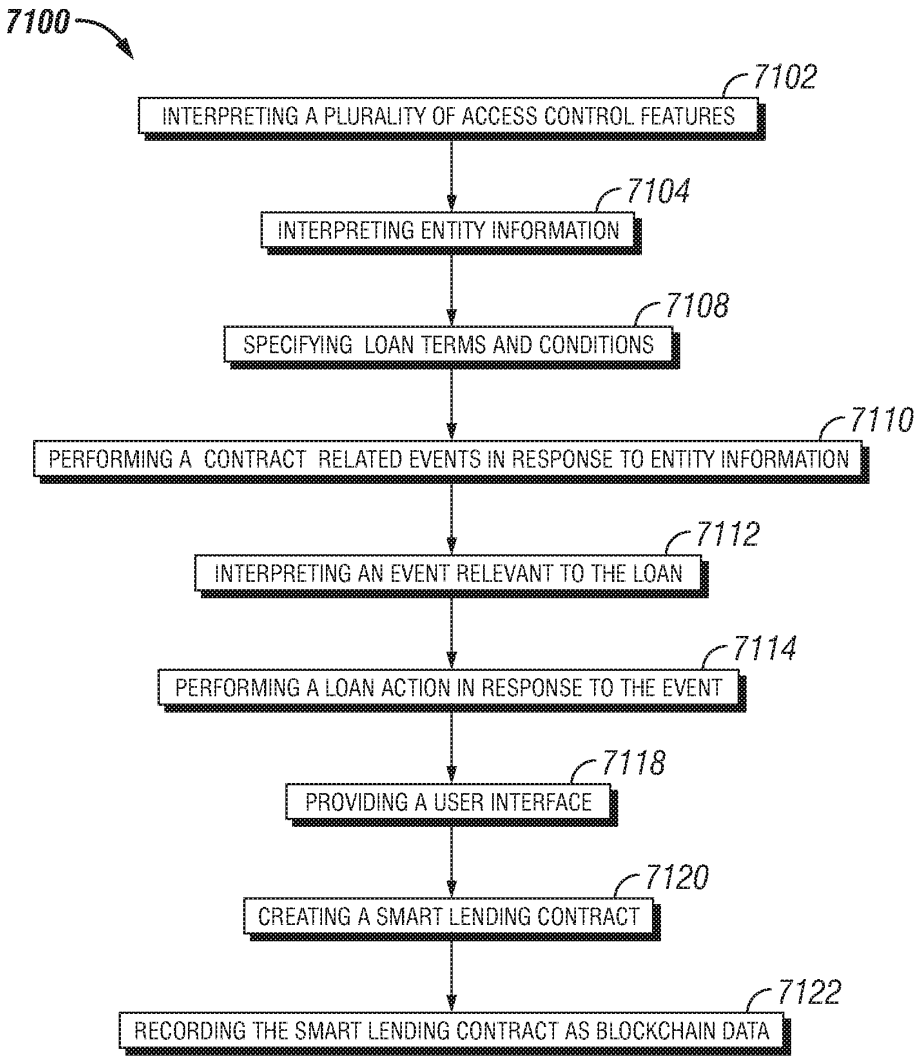
7100
7102
INTERPRETING A PLURALITY OF ACCESS CONTROL FEATURES
7104
INTERPRETING ENTITY INFORMATION
7108
SPECIFYING LOAN TERMS AND CONDITIONS
7110
PERFORMING A CONTRACT RELATED EVENTS IN RESPONSE TO ENTITY INFORMATION
7112
INTERPRETING AN EVENT RELEVANT TO THE LOAN
7114
PERFORMING A LOAN ACTION IN RESPONSE TO THE EVENT
7118
PROVIDING A USER INTERFACE
7120
CREATING A SMART LENDING CONTRACT
7122
RECORDING THE SMART LENDING CONTRACT AS BLOCKCHAIN DATA

FIG. 71

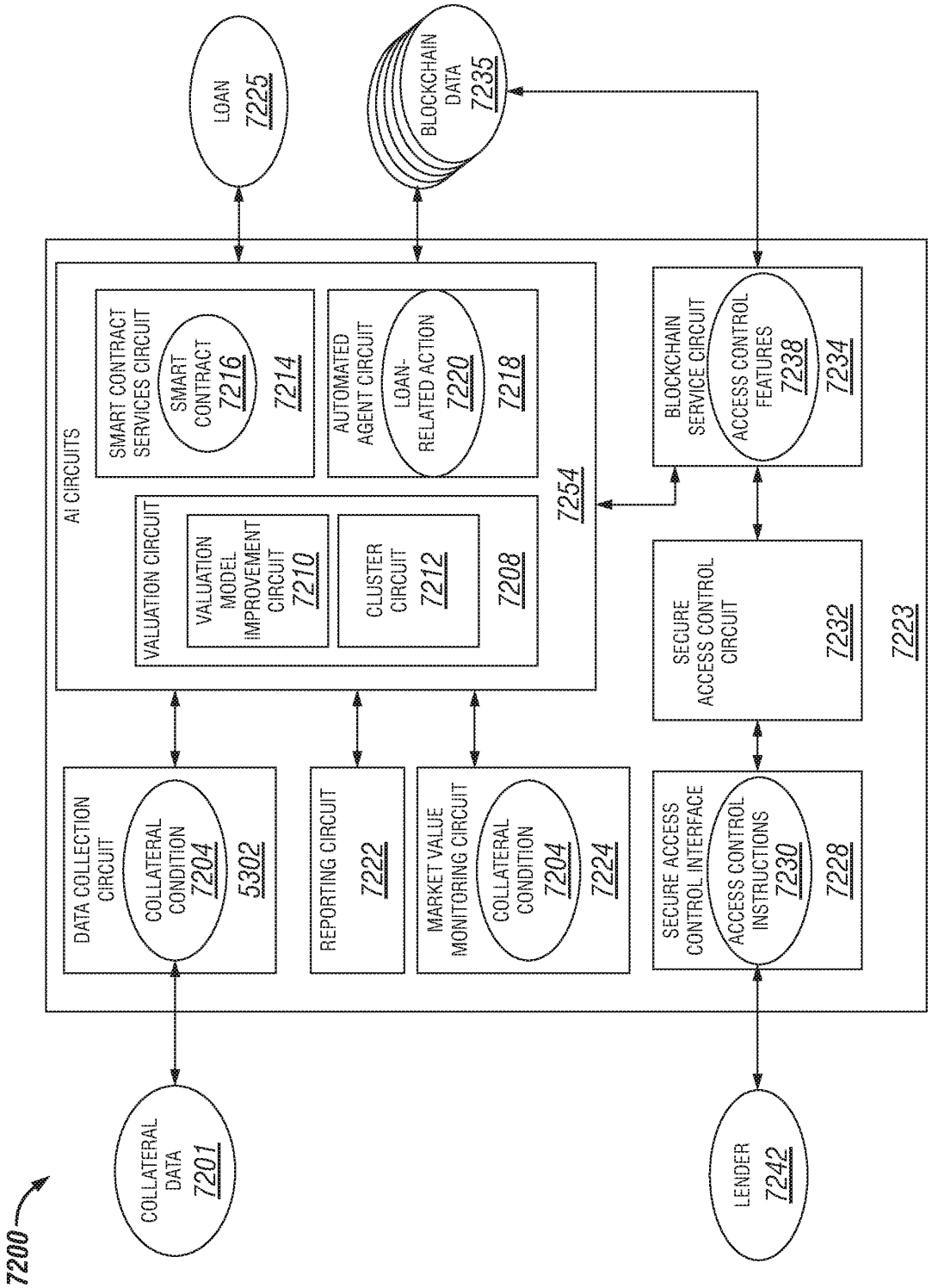
7200
COLLATERAL DATA 7201
LENDER 7242
LOAN 7225
BLOCKCHAIN DATA 7235
AI CIRCUITS
SMART CONTRACT SERVICES CIRCUIT
SMART CONTRACT 7216
7214
AUTOMATED AGENT CIRCUIT
LOAN-RELATED ACTION 7220
7218
VALUATION CIRCUIT
VALUATION MODEL IMPROVEMENT CIRCUIT 7210
CLUSTER CIRCUIT 7212
7208
7254
BLOCKCHAIN SERVICE CIRCUIT
ACCESS CONTROL FEATURES 7238
7234
SECURE ACCESS CONTROL CIRCUIT
7232
7223
DATA COLLECTION CIRCUIT
COLLATERAL CONDITION 7204
5302
REPORTING CIRCUIT
7222
MARKET VALUE MONITORING CIRCUIT
COLLATERAL CONDITION 7204
7224
SECURE ACCESS CONTROL INTERFACE
ACCESS CONTROL INSTRUCTIONS 7230
7228

FIG. 72

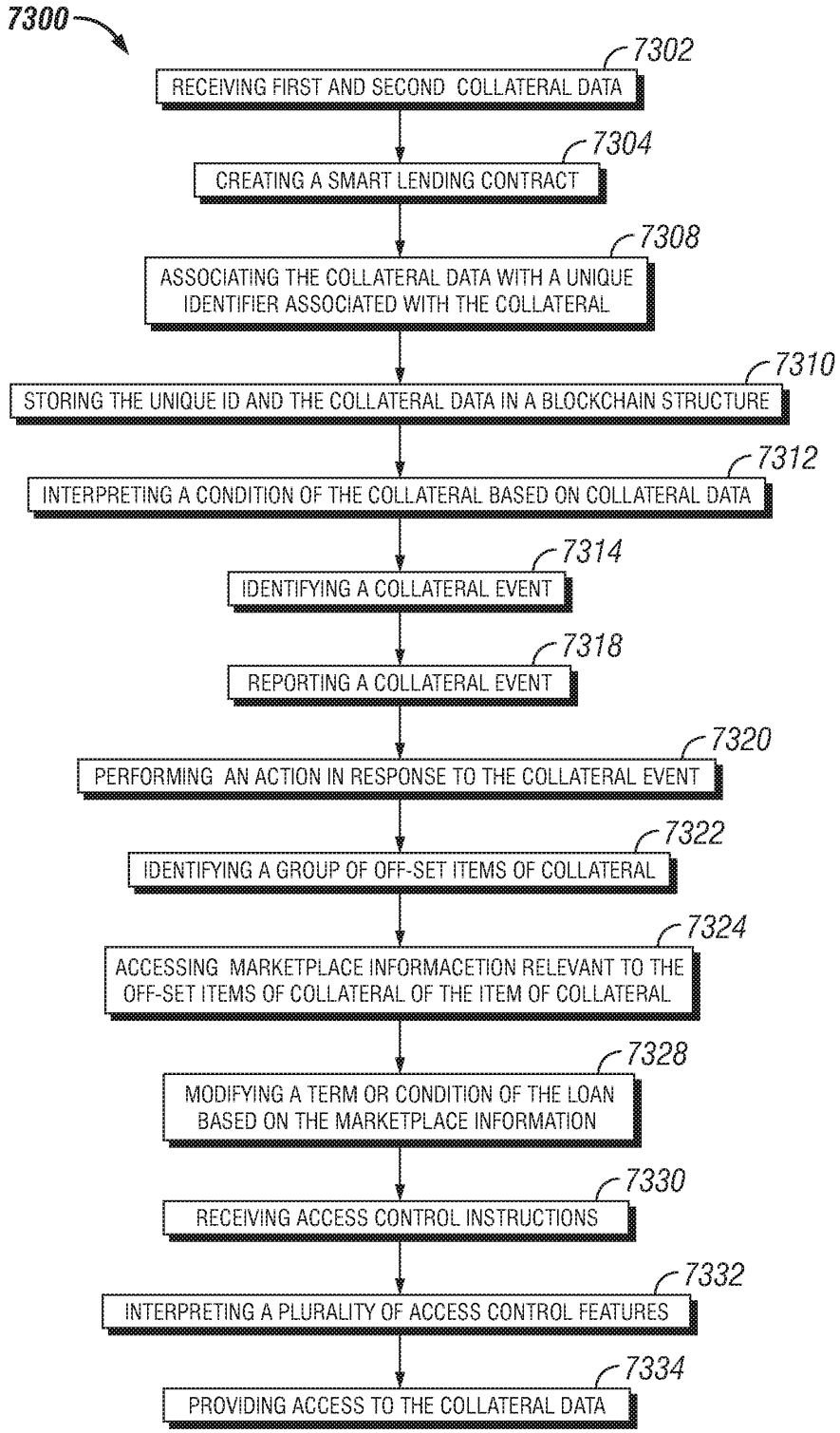
7300
7302
RECEIVING FIRST AND SECOND COLLATERAL DATA
7304
CREATING A SMART LENDING CONTRACT
7308
ASSOCIATING THE COLLATERAL DATA WITH A UNIQUE IDENTIFIER ASSOCIATED WITH THE COLLATERAL
7310
STORING THE UNIQUE ID AND THE COLLATERAL DATA IN A BLOCKCHAIN STRUCTURE
7312
INTERPRETING A CONDITION OF THE COLLATERAL BASED ON COLLATERAL DATA
7314
IDENTIFYING A COLLATERAL EVENT
7318
REPORTING A COLLATERAL EVENT
7320
PERFORMING AN ACTION IN RESPONSE TO THE COLLATERAL EVENT
7322
IDENTIFYING A GROUP OF OFF-SET ITEMS OF COLLATERAL
7324
ACCESSING MARKETPLACE INFORMACETION RELEVANT TO THE OFF-SET ITEMS OF COLLATERAL OF THE ITEM OF COLLATERAL
7328
MODIFYING A TERM OR CONDITION OF THE LOAN BASED ON THE MARKETPLACE INFORMATION
7330
RECEIVING ACCESS CONTROL INSTRUCTIONS
7332
INTERPRETING A PLURALITY OF ACCESS CONTROL FEATURES
7334
PROVIDING ACCESS TO THE COLLATERAL DATA

FIG. 73

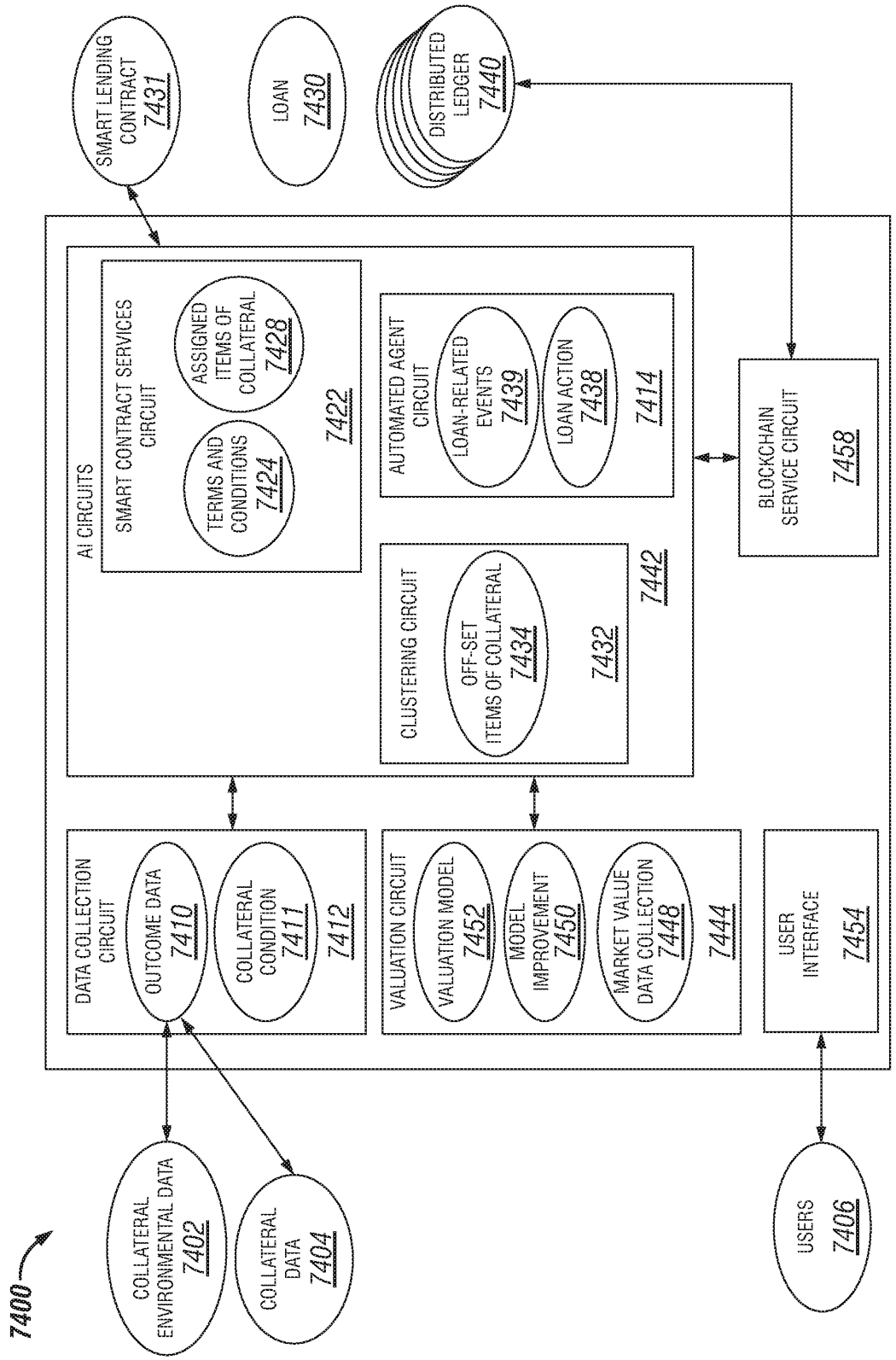
7400
COLLATERAL ENVIRONMENTAL DATA 7402
COLLATERAL DATA 7404
USERS 7406
AI CIRCUITS
DATA COLLECTION CIRCUIT
OUTCOME DATA 7410
COLLATERAL CONDITION 7411
7412
VALUATION CIRCUIT
VALUATION MODEL 7452
MODEL IMPROVEMENT 7450
MARKET VALUE DATA COLLECTION 7448
7444
USER INTERFACE 7454
SMART CONTRACT SERVICES CIRCUIT
TERMS AND CONDITIONS 7424
ASSIGNED ITEMS OF COLLATERAL 7428
7422
CLUSTERING CIRCUIT
OFF-SET ITEMS OF COLLATERAL 7434
7432
7442
AUTOMATED AGENT CIRCUIT
LOAN-RELATED EVENTS 7439
LOAN ACTION 7438
7414
BLOCKCHAIN SERVICE CIRCUIT 7458
SMART LENDING CONTRACT 7431
LOAN 7430
DISTRIBUTED LEDGER 7440

FIG. 74

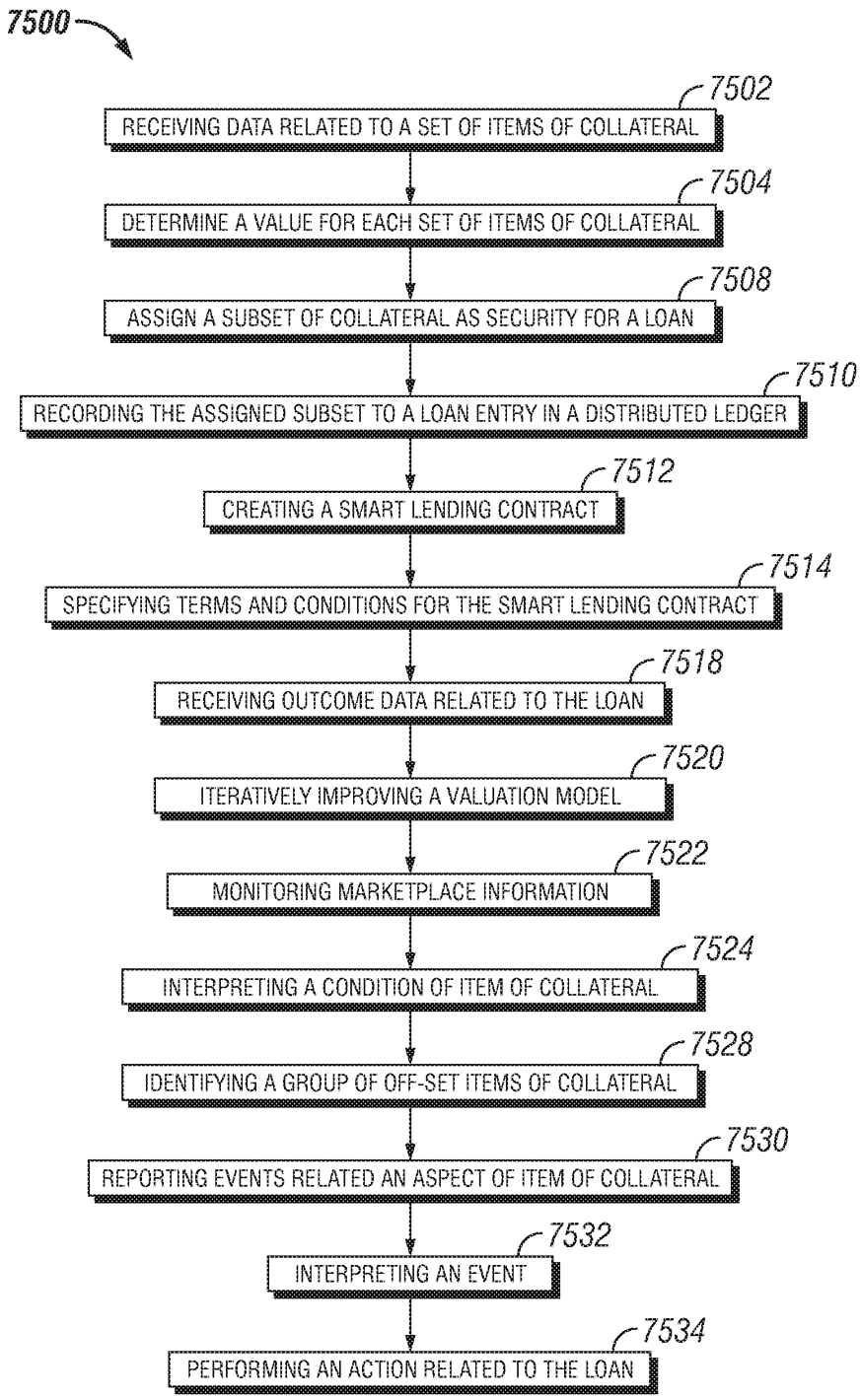
7500
7502
RECEIVING DATA RELATED TO A SET OF ITEMS OF COLLATERAL
7504
DETERMINE A VALUE FOR EACH SET OF ITEMS OF COLLATERAL
7508
ASSIGN A SUBSET OF COLLATERAL AS SECURITY FOR A LOAN
7510
RECORDING THE ASSIGNED SUBSET TO A LOAN ENTRY IN A DISTRIBUTED LEDGER
7512
CREATING A SMART LENDING CONTRACT
7514
SPECIFYING TERMS AND CONDITIONS FOR THE SMART LENDING CONTRACT
7518
RECEIVING OUTCOME DATA RELATED TO THE LOAN
7520
ITERATIVELY IMPROVING A VALUATION MODEL
7522
MONITORING MARKETPLACE INFORMATION
7524
INTERPRETING A CONDITION OF ITEM OF COLLATERAL
7528
IDENTIFYING A GROUP OF OFF-SET ITEMS OF COLLATERAL
7530
REPORTING EVENTS RELATED AN ASPECT OF ITEM OF COLLATERAL
7532
INTERPRETING AN EVENT
7534
PERFORMING AN ACTION RELATED TO THE LOAN

FIG. 75

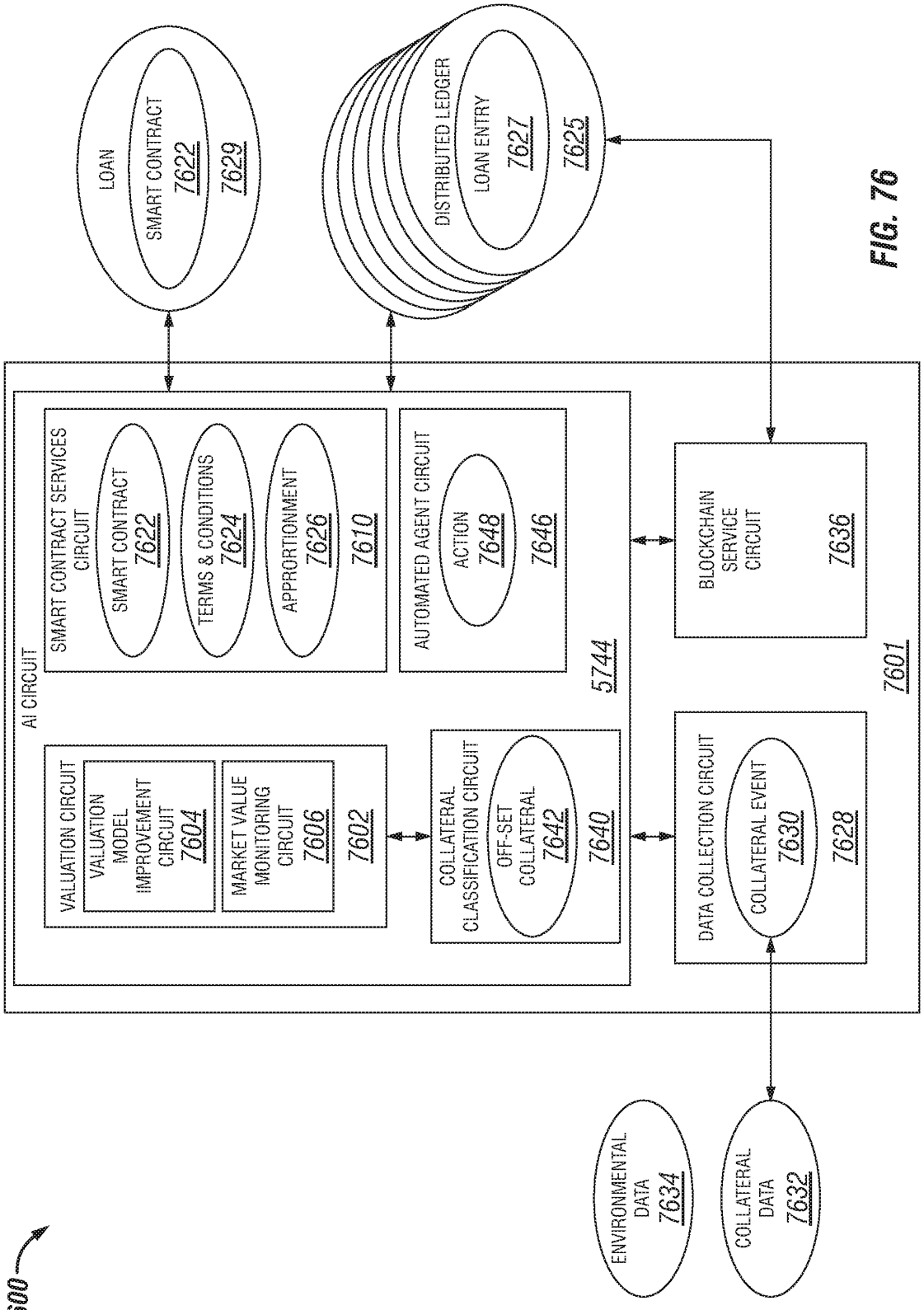
7600
LOAN
SMART CONTRACT
7622
7629
DISTRIBUTED LEDGER
LOAN ENTRY
7627
7625
AI CIRCUIT
SMART CONTRACT SERVICES CIRCUIT
SMART CONTRACT
7622
TERMS & CONDITIONS
7624
APPRORTIONMENT
7626
7610
AUTOMATED AGENT CIRCUIT
ACTION
7648
7646
5744
VALUATION CIRCUIT
VALUATION MODEL IMPROVEMENT CIRCUIT
7604
MARKET VALUE MONITORING CIRCUIT
7606
7602
COLLATERAL CLASSIFICATION CIRCUIT
OFF-SET COLLATERAL
7642
7640
DATA COLLECTION CIRCUIT
COLLATERAL EVENT
7630
7628
BLOCKCHAIN SERVICE CIRCUIT
7636
7601
ENVIRONMENTAL DATA
7634
COLLATERAL DATA
7632

FIG. 76

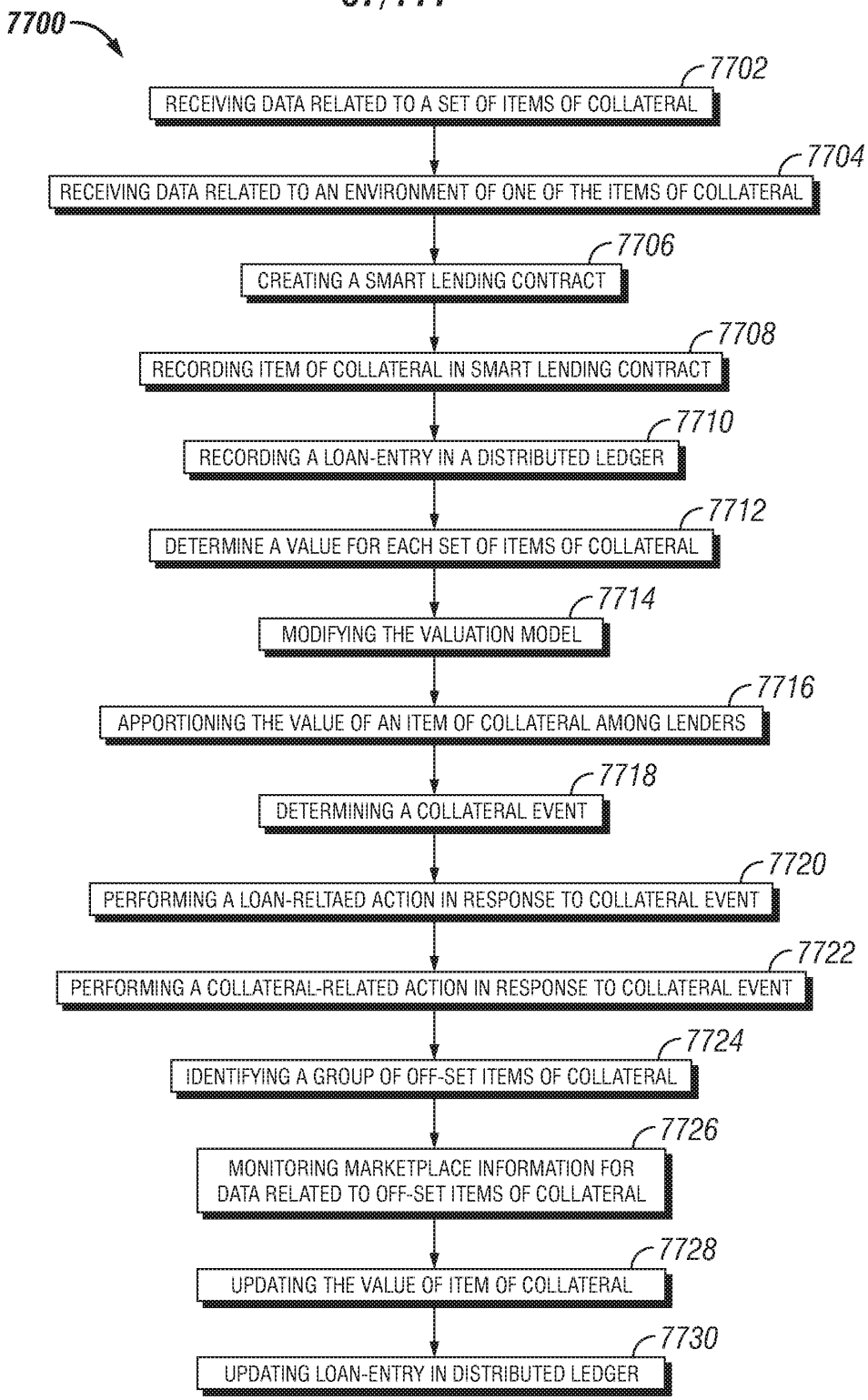
7700
7702
RECEIVING DATA RELATED TO A SET OF ITEMS OF COLLATERAL
7704
RECEIVING DATA RELATED TO AN ENVIRONMENT OF ONE OF THE ITEMS OF COLLATERAL
7706
CREATING A SMART LENDING CONTRACT
7708
RECORDING ITEM OF COLLATERAL IN SMART LENDING CONTRACT
7710
RECORDING A LOAN-ENTRY IN A DISTRIBUTED LEDGER
7712
DETERMINE A VALUE FOR EACH SET OF ITEMS OF COLLATERAL
7714
MODIFYING THE VALUATION MODEL
7716
APPORTIONING THE VALUE OF AN ITEM OF COLLATERAL AMONG LENDERS
7718
DETERMINING A COLLATERAL EVENT
7720
PERFORMING A LOAN-RELTAED ACTION IN RESPONSE TO COLLATERAL EVENT
7722
PERFORMING A COLLATERAL-RELATED ACTION IN RESPONSE TO COLLATERAL EVENT
7724
IDENTIFYING A GROUP OF OFF-SET ITEMS OF COLLATERAL
7726
MONITORING MARKETPLACE INFORMATION FOR DATA RELATED TO OFF-SET ITEMS OF COLLATERAL
7728
UPDATING THE VALUE OF ITEM OF COLLATERAL
7730
UPDATING LOAN-ENTRY IN DISTRIBUTED LEDGER

FIG. 77

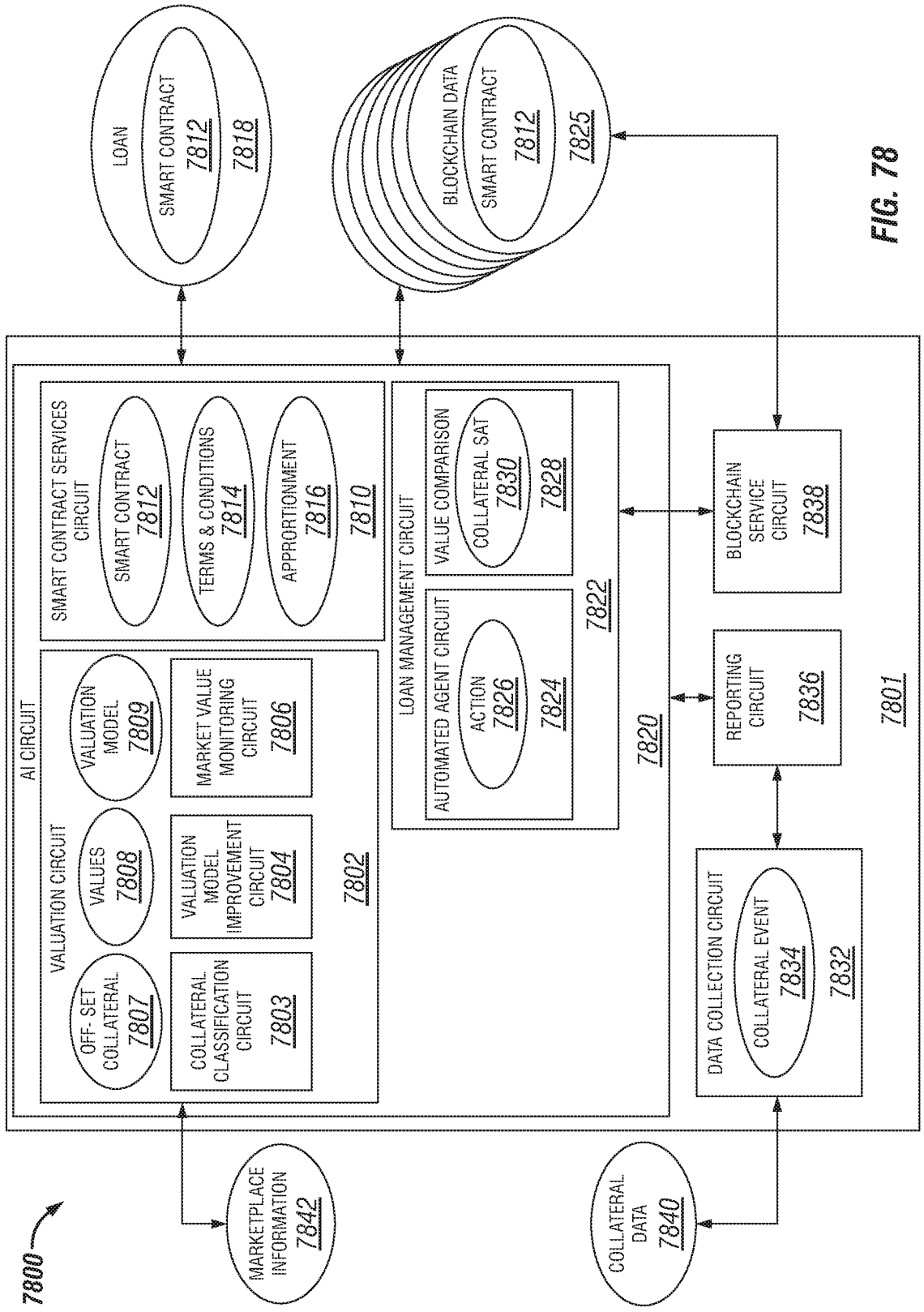
7800
MARKETPLACE INFORMATION 7842
COLLATERAL DATA 7840
AI CIRCUIT
VALUATION CIRCUIT
OFF- SET COLLATERAL 7807
VALUES 7808
VALUATION MODEL 7809
COLLATERAL CLASSIFICATION CIRCUIT 7803
VALUATION MODEL IMPROVEMENT CIRCUIT 7804
MARKET VALUE MONITORING CIRCUIT 7806
7802
SMART CONTRACT SERVICES CIRCUIT
SMART CONTRACT 7812
TERMS & CONDITIONS 7814
APPROPRIONMENT 7816
7810
LOAN MANAGEMENT CIRCUIT
AUTOMATED AGENT CIRCUIT
ACTION 7826
7824
VALUE COMPARISON
COLLATERAL SAT 7830
7828
7822
7820
LOAN
SMART CONTRACT 7812
7818
BLOCKCHAIN DATA
SMART CONTRACT 7812
7825
BLOCKCHAIN SERVICE CIRCUIT 7838
REPORTING CIRCUIT 7836
DATA COLLECTION CIRCUIT
COLLATERAL EVENT 7834
7832
7801

FIG. 78

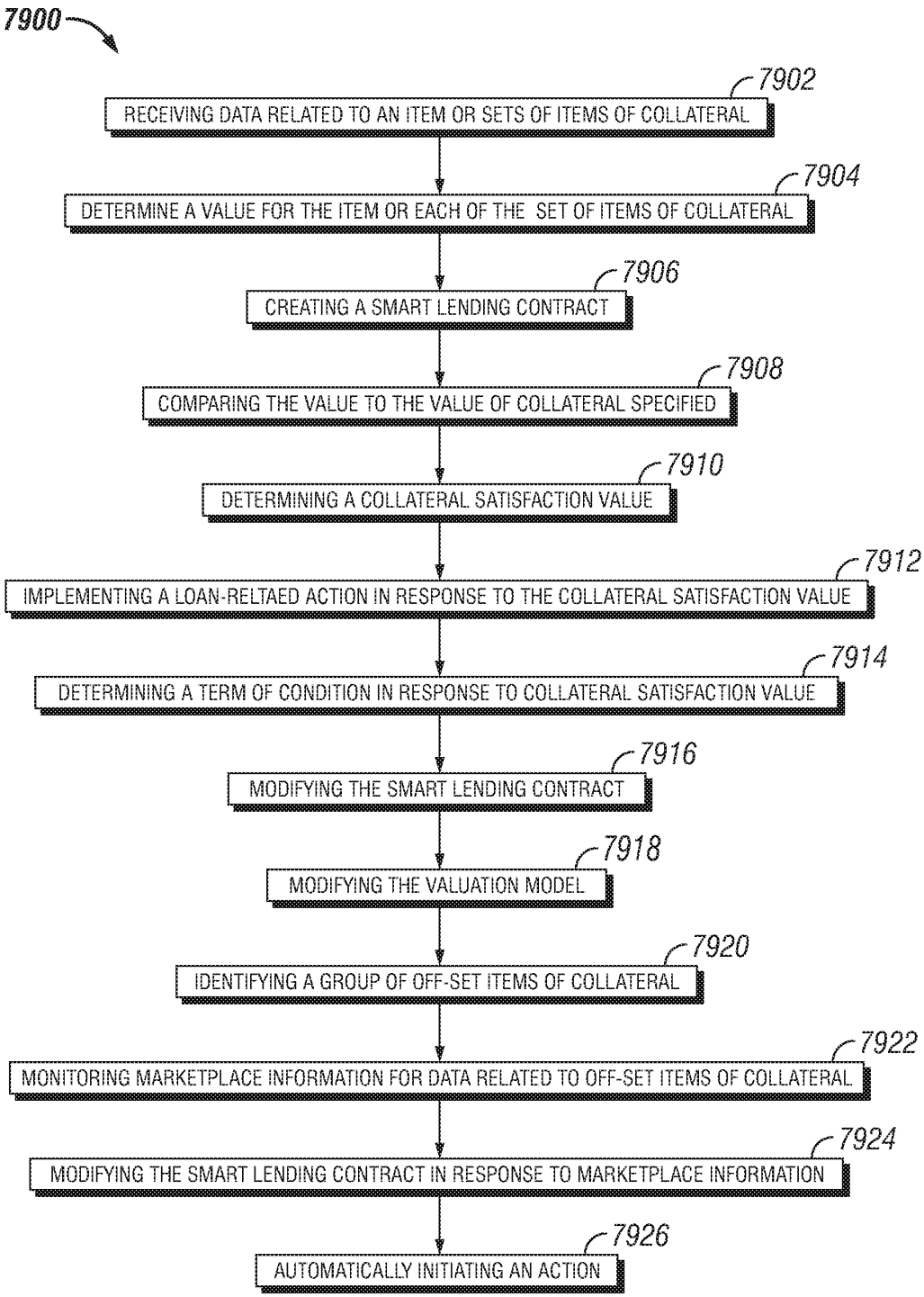
7900
7902
RECEIVING DATA RELATED TO AN ITEM OR SETS OF ITEMS OF COLLATERAL
7904
DETERMINE A VALUE FOR THE ITEM OR EACH OF THE SET OF ITEMS OF COLLATERAL
7906
CREATING A SMART LENDING CONTRACT
7908
COMPARING THE VALUE TO THE VALUE OF COLLATERAL SPECIFIED
7910
DETERMINING A COLLATERAL SATISFACTION VALUE
7912
IMPLEMENTING A LOAN-RELTAED ACTION IN RESPONSE TO THE COLLATERAL SATISFACTION VALUE
7914
DETERMINING A TERM OF CONDITION IN RESPONSE TO COLLATERAL SATISFACTION VALUE
7916
MODIFYING THE SMART LENDING CONTRACT
7918
MODIFYING THE VALUATION MODEL
7920
IDENTIFYING A GROUP OF OFF-SET ITEMS OF COLLATERAL
7922
MONITORING MARKETPLACE INFORMATION FOR DATA RELATED TO OFF-SET ITEMS OF COLLATERAL
7924
MODIFYING THE SMART LENDING CONTRACT IN RESPONSE TO MARKETPLACE INFORMATION
7926
AUTOMATICALLY INITIATING AN ACTION

FIG. 79

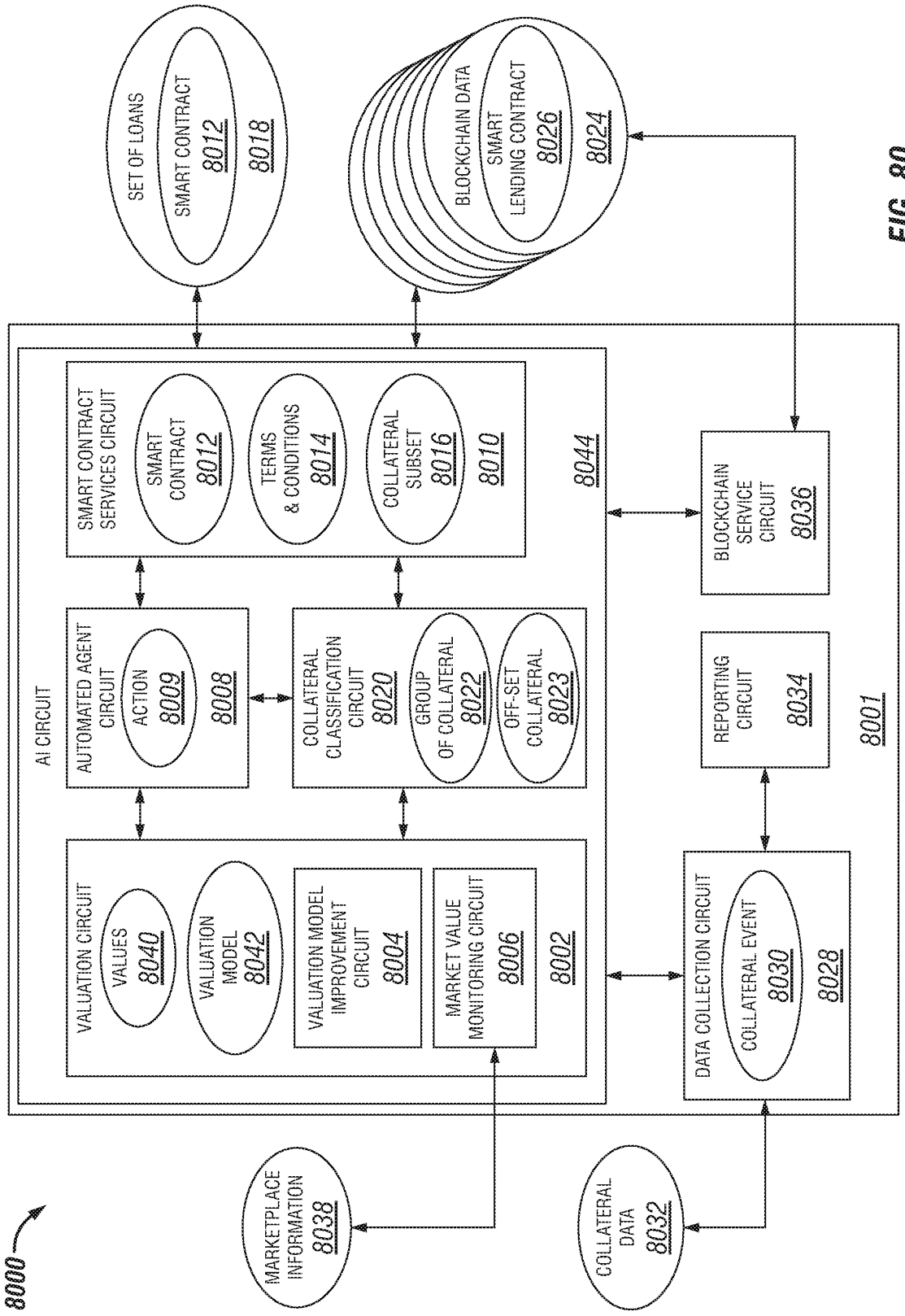
8000
SET OF LOANS
SMART CONTRACT
8012
8018
BLOCKCHAIN DATA
SMART LENDING CONTRACT
8026
8024
AI CIRCUIT
SMART CONTRACT SERVICES CIRCUIT
SMART CONTRACT
8012
TERMS & CONDITIONS
8014
COLLATERAL SUBSET
8016
8010
8044
AUTOMATED AGENT CIRCUIT
ACTION
8009
8008
COLLATERAL CLASSIFICATION CIRCUIT
8020
GROUP OF COLLATERAL
8022
OFF-SET COLLATERAL
8023
BLOCKCHAIN SERVICE CIRCUIT
8036
REPORTING CIRCUIT
8034
8001
VALUATION CIRCUIT
VALUES
8040
VALUATION MODEL
8042
VALUATION MODEL IMPROVEMENT CIRCUIT
8004
MARKET VALUE MONITORING CIRCUIT
8006
8002
DATA COLLECTION CIRCUIT
COLLATERAL EVENT
8030
8028
MARKETPLACE INFORMATION
8038
COLLATERAL DATA
8032

FIG. 80

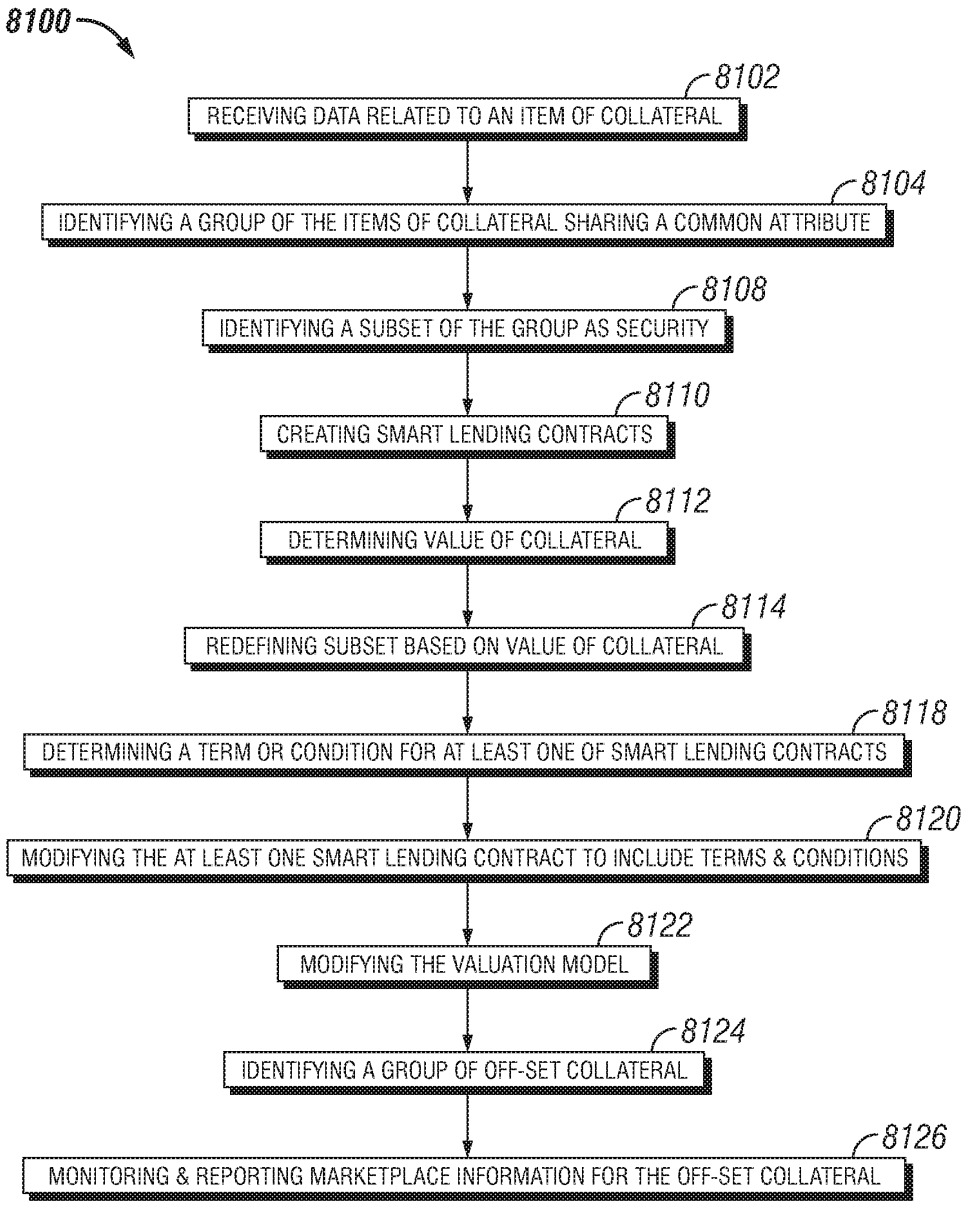
8100
8102
RECEIVING DATA RELATED TO AN ITEM OF COLLATERAL
8104
IDENTIFYING A GROUP OF THE ITEMS OF COLLATERAL SHARING A COMMON ATTRIBUTE
8108
IDENTIFYING A SUBSET OF THE GROUP AS SECURITY
8110
CREATING SMART LENDING CONTRACTS
8112
DETERMINING VALUE OF COLLATERAL
8114
REDEFINING SUBSET BASED ON VALUE OF COLLATERAL
8118
DETERMINING A TERM OR CONDITION FOR AT LEAST ONE OF SMART LENDING CONTRACTS
8120
MODIFYING THE AT LEAST ONE SMART LENDING CONTRACT TO INCLUDE TERMS & CONDITIONS
8122
MODIFYING THE VALUATION MODEL
8124
IDENTIFYING A GROUP OF OFF-SET COLLATERAL
8126
MONITORING & REPORTING MARKETPLACE INFORMATION FOR THE OFF-SET COLLATERAL

FIG. 81

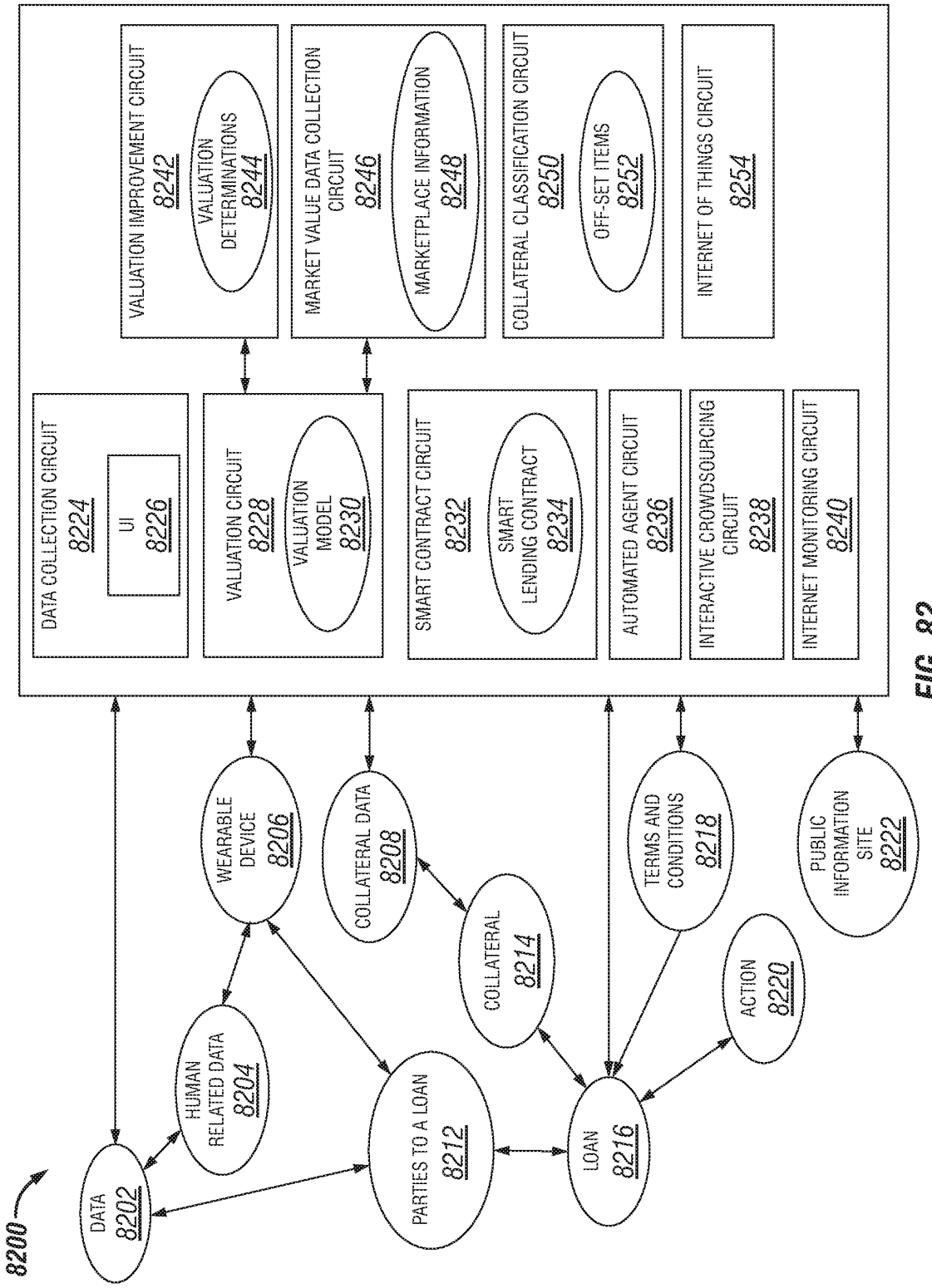
8200
DATA 8202
HUMAN RELATED DATA 8204
WEARABLE DEVICE 8206
COLLATERAL DATA 8208
PARTIES TO A LOAN 8212
COLLATERAL 8214
LOAN 8216
TERMS AND CONDITIONS 8218
ACTION 8220
PUBLIC INFORMATION SITE 8222
DATA COLLECTION CIRCUIT 8224
UI 8226
VALUATION CIRCUIT 8228
VALUATION MODEL 8230
SMART CONTRACT CIRCUIT 8232
SMART LENDING CONTRACT 8234
AUTOMATED AGENT CIRCUIT 8236
INTERACTIVE CROWDSOURCING CIRCUIT 8238
INTERNET MONITORING CIRCUIT 8240
VALUATION IMPROVEMENT CIRCUIT 8242
VALUATION DETERMINATIONS 8244
MARKET VALUE DATA COLLECTION CIRCUIT 8246
MARKETPLACE INFORMATION 8248
COLLATERAL CLASSIFICATION CIRCUIT 8250
OFF-SET ITEMS 8252
INTERNET OF THINGS CIRCUIT 8254

FIG. 82

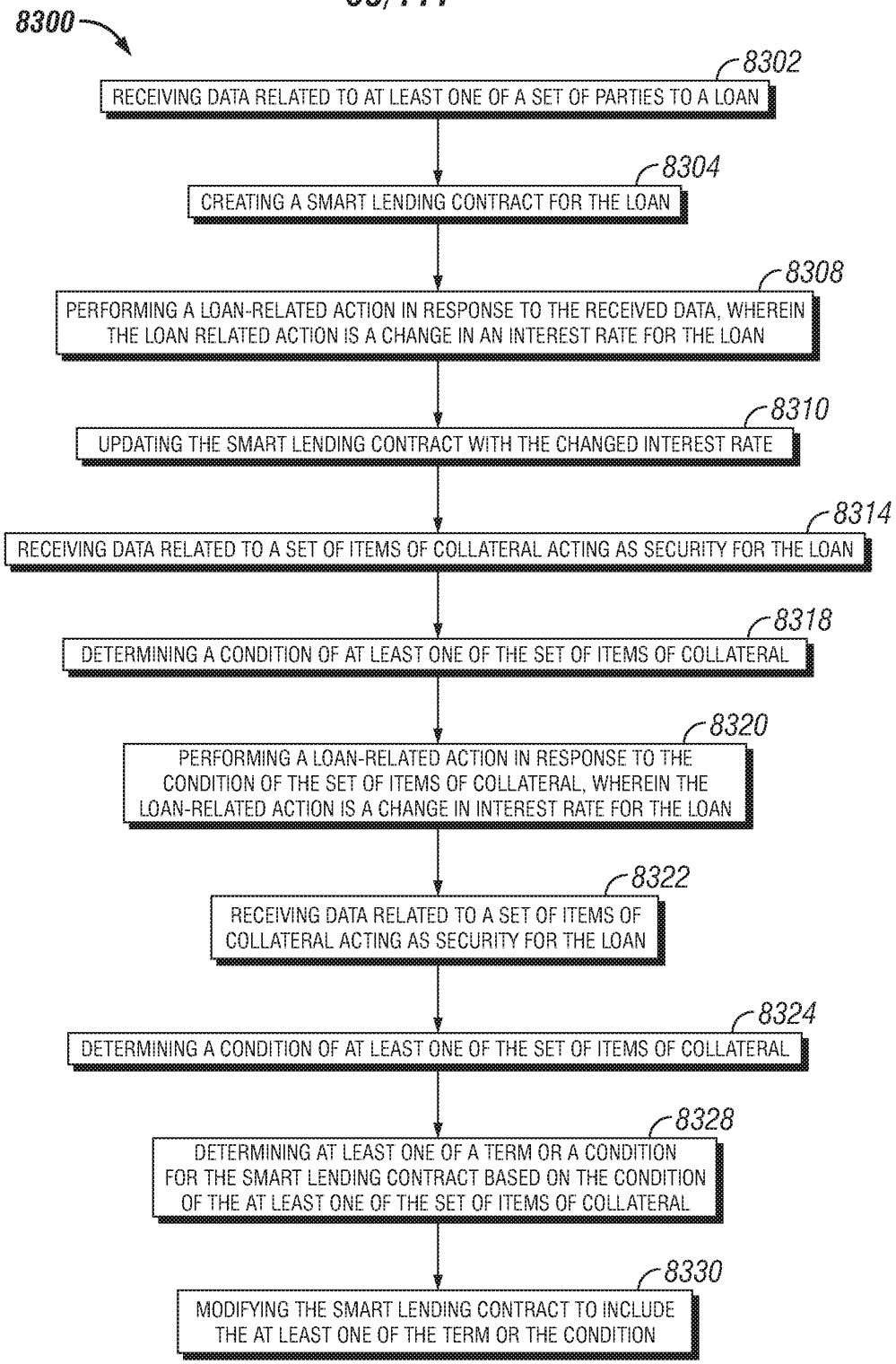
8300
8302
RECEIVING DATA RELATED TO AT LEAST ONE OF A SET OF PARTIES TO A LOAN
8304
CREATING A SMART LENDING CONTRACT FOR THE LOAN
8308
PERFORMING A LOAN-RELATED ACTION IN RESPONSE TO THE RECEIVED DATA, WHEREIN THE LOAN RELATED ACTION IS A CHANGE IN AN INTEREST RATE FOR THE LOAN
8310
UPDATING THE SMART LENDING CONTRACT WITH THE CHANGED INTEREST RATE
8314
RECEIVING DATA RELATED TO A SET OF ITEMS OF COLLATERAL ACTING AS SECURITY FOR THE LOAN
8318
DETERMINING A CONDITION OF AT LEAST ONE OF THE SET OF ITEMS OF COLLATERAL
8320
PERFORMING A LOAN-RELATED ACTION IN RESPONSE TO THE CONDITION OF THE SET OF ITEMS OF COLLATERAL, WHEREIN THE LOAN-RELATED ACTION IS A CHANGE IN INTEREST RATE FOR THE LOAN
8322
RECEIVING DATA RELATED TO A SET OF ITEMS OF COLLATERAL ACTING AS SECURITY FOR THE LOAN
8324
DETERMINING A CONDITION OF AT LEAST ONE OF THE SET OF ITEMS OF COLLATERAL
8328
DETERMINING AT LEAST ONE OF A TERM OR A CONDITION FOR THE SMART LENDING CONTRACT BASED ON THE CONDITION OF THE AT LEAST ONE OF THE SET OF ITEMS OF COLLATERAL
8330
MODIFYING THE SMART LENDING CONTRACT TO INCLUDE THE AT LEAST ONE OF THE TERM OR THE CONDITION

FIG. 83

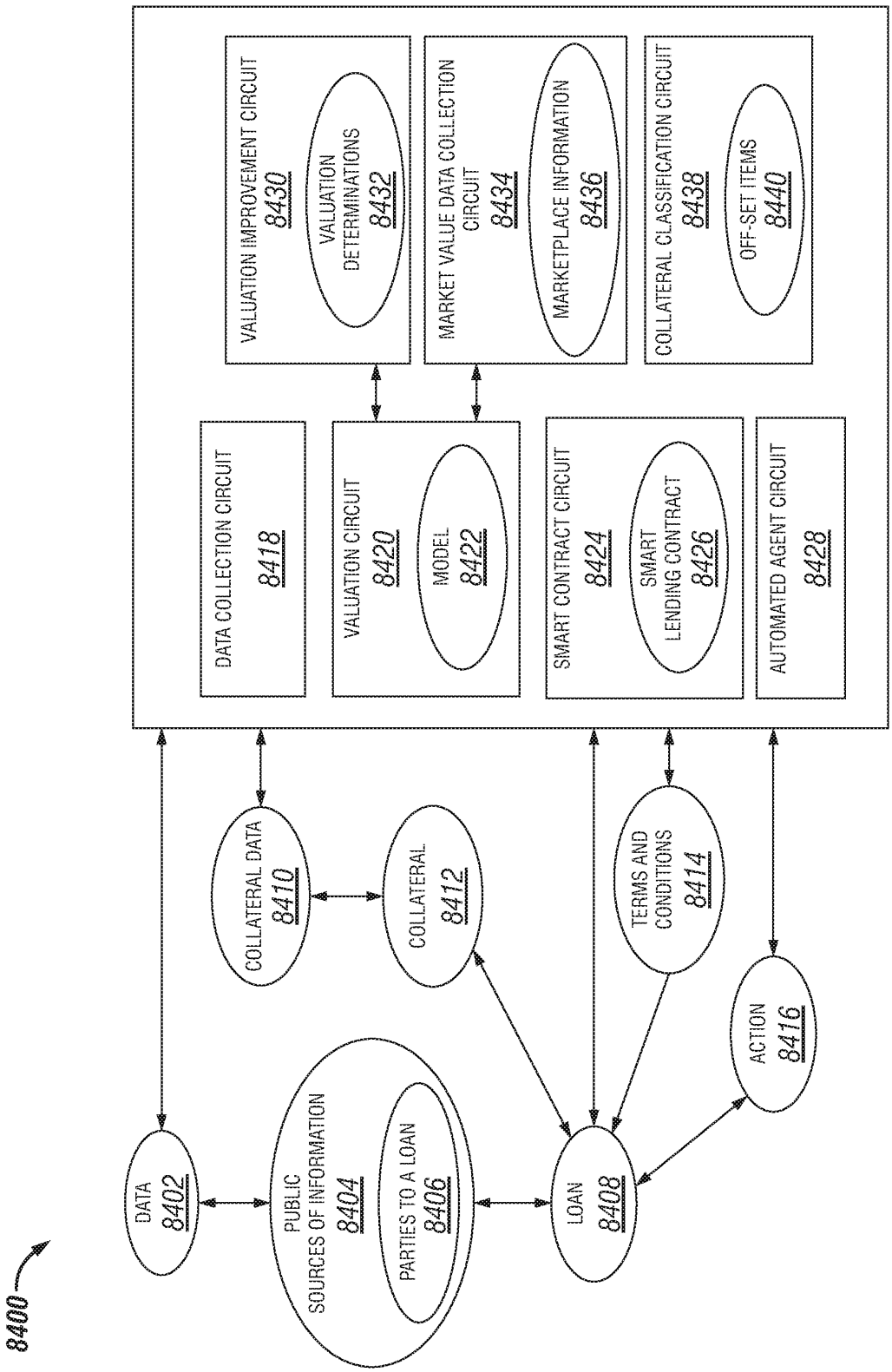
8400
DATA 8402
PUBLIC SOURCES OF INFORMATION 8404
PARTIES TO A LOAN 8406
LOAN 8408
COLLATERAL DATA 8410
COLLATERAL 8412
TERMS AND CONDITIONS 8414
ACTION 8416
DATA COLLECTION CIRCUIT 8418
VALUATION CIRCUIT 8420
MODEL 8422
SMART CONTRACT CIRCUIT 8424
SMART LENDING CONTRACT 8426
AUTOMATED AGENT CIRCUIT 8428
VALUATION IMPROVEMENT CIRCUIT 8430
VALUATION DETERMINATIONS 8432
MARKET VALUE DATA COLLECTION CIRCUIT 8434
MARKETPLACE INFORMATION 8436
COLLATERAL CLASSIFICATION CIRCUIT 8438
OFF-SET ITEMS 8440

FIG. 84

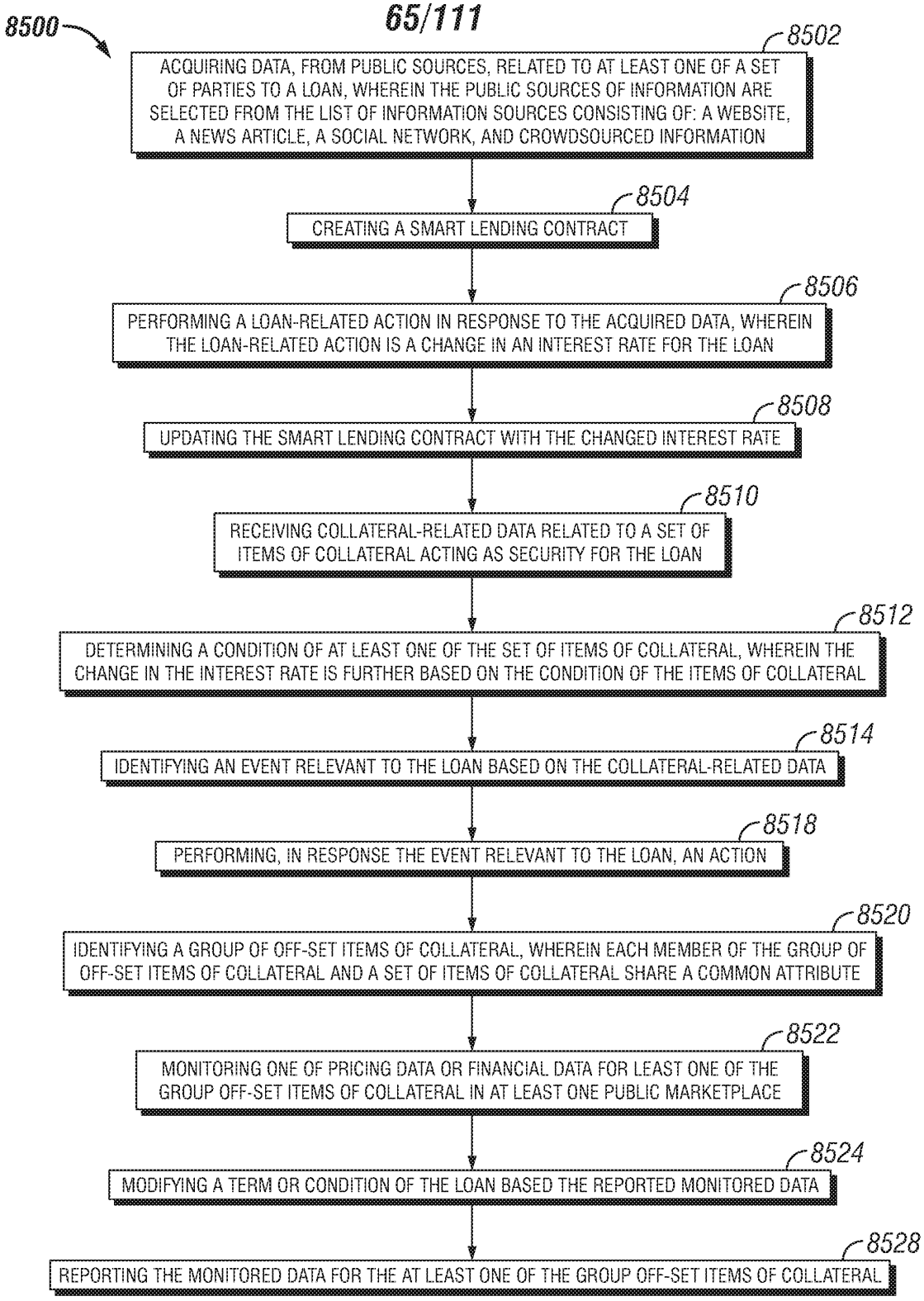
8500
8502
ACQUIRING DATA, FROM PUBLIC SOURCES, RELATED TO AT LEAST ONE OF A SET OF PARTIES TO A LOAN, WHEREIN THE PUBLIC SOURCES OF INFORMATION ARE SELECTED FROM THE LIST OF INFORMATION SOURCES CONSISTING OF: A WEBSITE, A NEWS ARTICLE, A SOCIAL NETWORK, AND CROWDSOURCED INFORMATION
8504
CREATING A SMART LENDING CONTRACT
8506
PERFORMING A LOAN-RELATED ACTION IN RESPONSE TO THE ACQUIRED DATA, WHEREIN THE LOAN-RELATED ACTION IS A CHANGE IN AN INTEREST RATE FOR THE LOAN
8508
UPDATING THE SMART LENDING CONTRACT WITH THE CHANGED INTEREST RATE
8510
RECEIVING COLLATERAL-RELATED DATA RELATED TO A SET OF ITEMS OF COLLATERAL ACTING AS SECURITY FOR THE LOAN
8512
DETERMINING A CONDITION OF AT LEAST ONE OF THE SET OF ITEMS OF COLLATERAL, WHEREIN THE CHANGE IN THE INTEREST RATE IS FURTHER BASED ON THE CONDITION OF THE ITEMS OF COLLATERAL
8514
IDENTIFYING AN EVENT RELEVANT TO THE LOAN BASED ON THE COLLATERAL-RELATED DATA
8518
PERFORMING, IN RESPONSE THE EVENT RELEVANT TO THE LOAN, AN ACTION
8520
IDENTIFYING A GROUP OF OFF-SET ITEMS OF COLLATERAL, WHEREIN EACH MEMBER OF THE GROUP OF OFF-SET ITEMS OF COLLATERAL AND A SET OF ITEMS OF COLLATERAL SHARE A COMMON ATTRIBUTE
8522
MONITORING ONE OF PRICING DATA OR FINANCIAL DATA FOR LEAST ONE OF THE GROUP OFF-SET ITEMS OF COLLATERAL IN AT LEAST ONE PUBLIC MARKETPLACE
8524
MODIFYING A TERM OR CONDITION OF THE LOAN BASED THE REPORTED MONITORED DATA
8528
REPORTING THE MONITORED DATA FOR THE AT LEAST ONE OF THE GROUP OFF-SET ITEMS OF COLLATERAL

FIG. 85

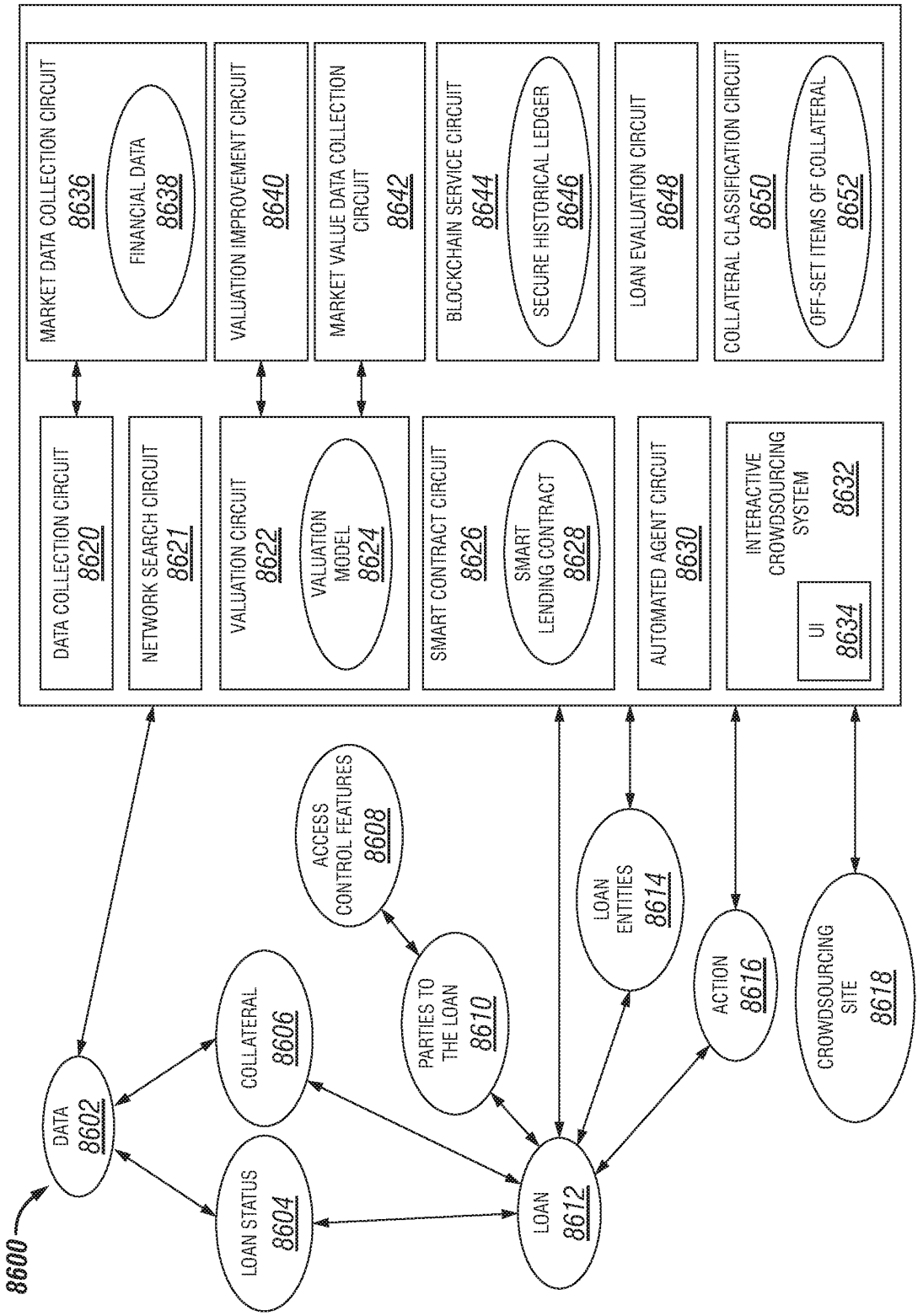
8600
DATA 8602
LOAN STATUS 8604
COLLATERAL 8606
ACCESS CONTROL FEATURES 8608
PARTIES TO THE LOAN 8610
LOAN 8612
LOAN ENTITIES 8614
ACTION 8616
CROWDSOURCING SITE 8618
DATA COLLECTION CIRCUIT 8620
NETWORK SEARCH CIRCUIT 8621
VALUATION CIRCUIT 8622
VALUATION MODEL 8624
SMART CONTRACT CIRCUIT 8626
SMART LENDING CONTRACT 8628
AUTOMATED AGENT CIRCUIT 8630
INTERACTIVE CROWDSOURCING SYSTEM 8632
UI 8634
MARKET DATA COLLECTION CIRCUIT 8636
FINANCIAL DATA 8638
VALUATION IMPROVEMENT CIRCUIT 8640
MARKET VALUE DATA COLLECTION CIRCUIT 8642
BLOCKCHAIN SERVICE CIRCUIT 8644
SECURE HISTORICAL LEDGER 8646
LOAN EVALUATION CIRCUIT 8648
COLLATERAL CLASSIFICATION CIRCUIT 8650
OFF-SET ITEMS OF COLLATERAL 8652

FIG. 86

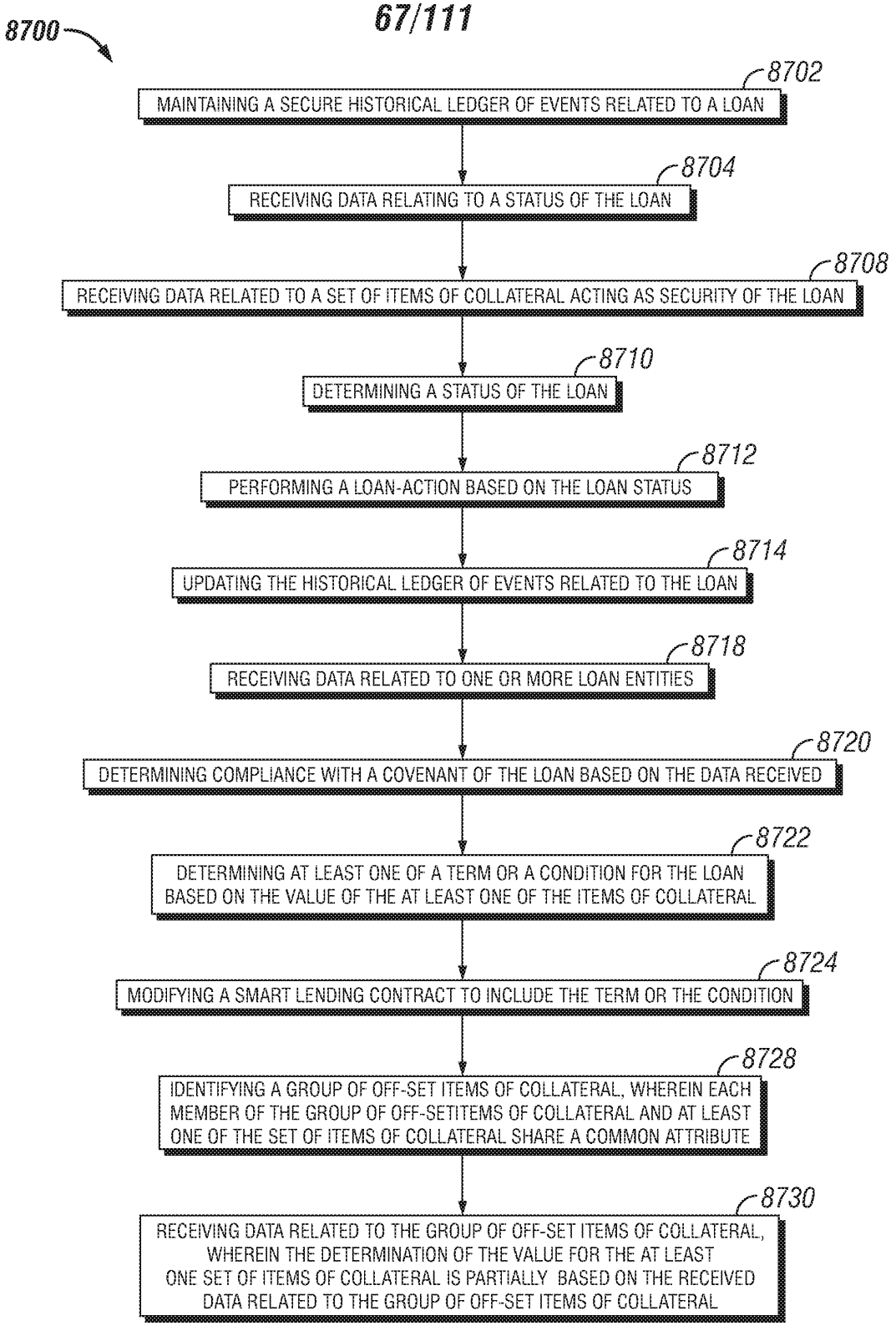
8700
8702
MAINTAINING A SECURE HISTORICAL LEDGER OF EVENTS RELATED TO A LOAN
8704
RECEIVING DATA RELATING TO A STATUS OF THE LOAN
8708
RECEIVING DATA RELATED TO A SET OF ITEMS OF COLLATERAL ACTING AS SECURITY OF THE LOAN
8710
DETERMINING A STATUS OF THE LOAN
8712
PERFORMING A LOAN-ACTION BASED ON THE LOAN STATUS
8714
UPDATING THE HISTORICAL LEDGER OF EVENTS RELATED TO THE LOAN
8718
RECEIVING DATA RELATED TO ONE OR MORE LOAN ENTITIES
8720
DETERMINING COMPLIANCE WITH A COVENANT OF THE LOAN BASED ON THE DATA RECEIVED
8722
DETERMINING AT LEAST ONE OF A TERM OR A CONDITION FOR THE LOAN BASED ON THE VALUE OF THE AT LEAST ONE OF THE ITEMS OF COLLATERAL
8724
MODIFYING A SMART LENDING CONTRACT TO INCLUDE THE TERM OR THE CONDITION
8728
IDENTIFYING A GROUP OF OFF-SET ITEMS OF COLLATERAL, WHEREIN EACH MEMBER OF THE GROUP OF OFF-SETITEMS OF COLLATERAL AND AT LEAST ONE OF THE SET OF ITEMS OF COLLATERAL SHARE A COMMON ATTRIBUTE
8730
RECEIVING DATA RELATED TO THE GROUP OF OFF-SET ITEMS OF COLLATERAL, WHEREIN THE DETERMINATION OF THE VALUE FOR THE AT LEAST ONE SET OF ITEMS OF COLLATERAL IS PARTIALLY BASED ON THE RECEIVED DATA RELATED TO THE GROUP OF OFF-SET ITEMS OF COLLATERAL

FIG. 87

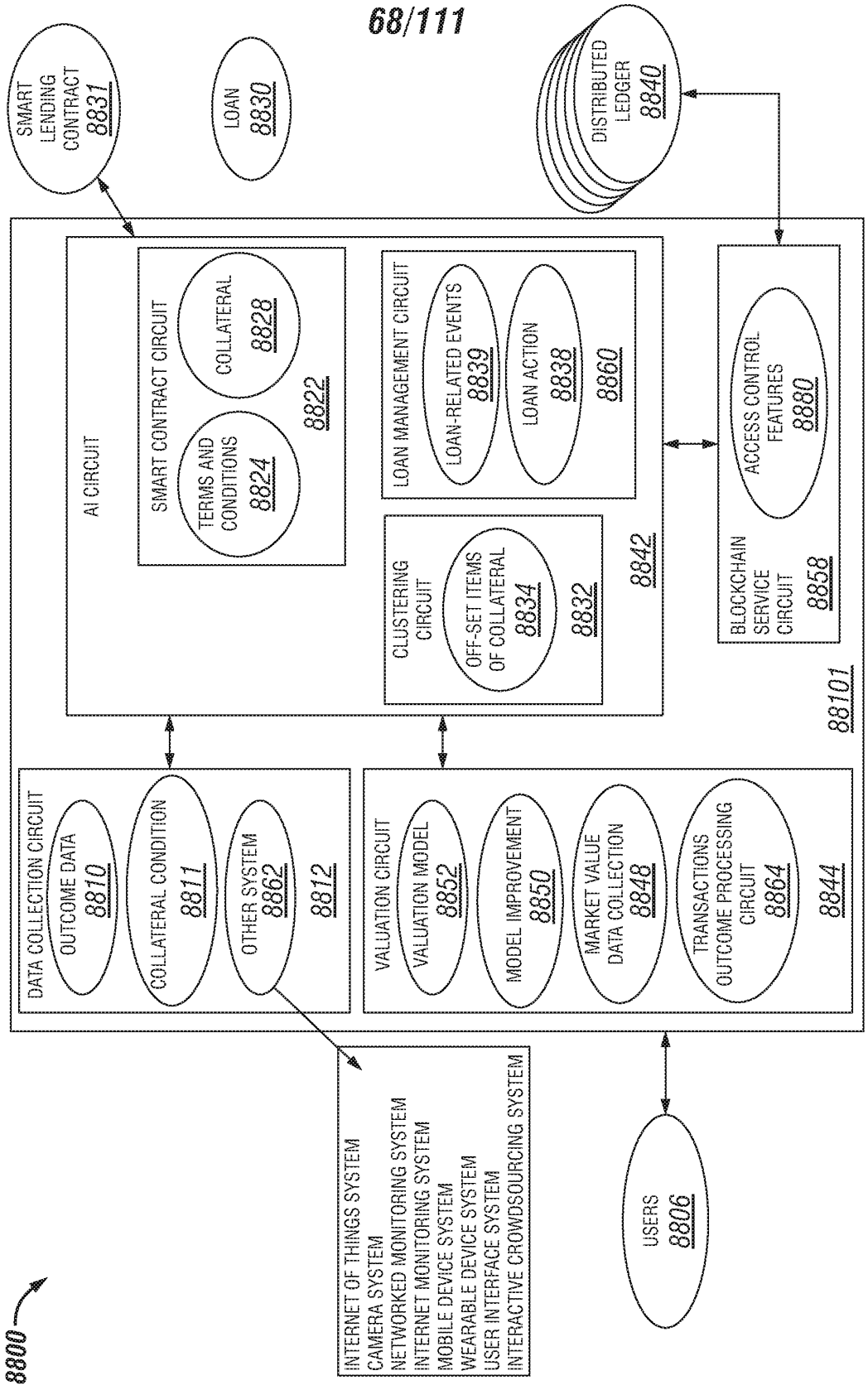
8800
SMART LENDING CONTRACT 8831
LOAN 8830
DISTRIBUTED LEDGER 8840
AI CIRCUIT
SMART CONTRACT CIRCUIT
TERMS AND CONDITIONS 8824
COLLATERAL 8828
8822
LOAN MANAGEMENT CIRCUIT
LOAN-RELATED EVENTS 8839
LOAN ACTION 8838
8860
CLUSTERING CIRCUIT
OFF-SET ITEMS OF COLLATERAL 8834
8832
8842
BLOCKCHAIN SERVICE CIRCUIT 8858
ACCESS CONTROL FEATURES 8880
88101
DATA COLLECTION CIRCUIT
OUTCOME DATA 8810
COLLATERAL CONDITION 8811
OTHER SYSTEM 8862
8812
VALUATION CIRCUIT
VALUATION MODEL 8852
MODEL IMPROVEMENT 8850
MARKET VALUE DATA COLLECTION 8848
TRANSACTIONS OUTCOME PROCESSING CIRCUIT 8864
8844
INTERNET OF THINGS SYSTEM
CAMERA SYSTEM
NETWORKED MONITORING SYSTEM
INTERNET MONITORING SYSTEM
MOBILE DEVICE SYSTEM
WEARABLE DEVICE SYSTEM
USER INTERFACE SYSTEM
INTERACTIVE CROWDSOURCING SYSTEM
USERS 8806

FIG. 88

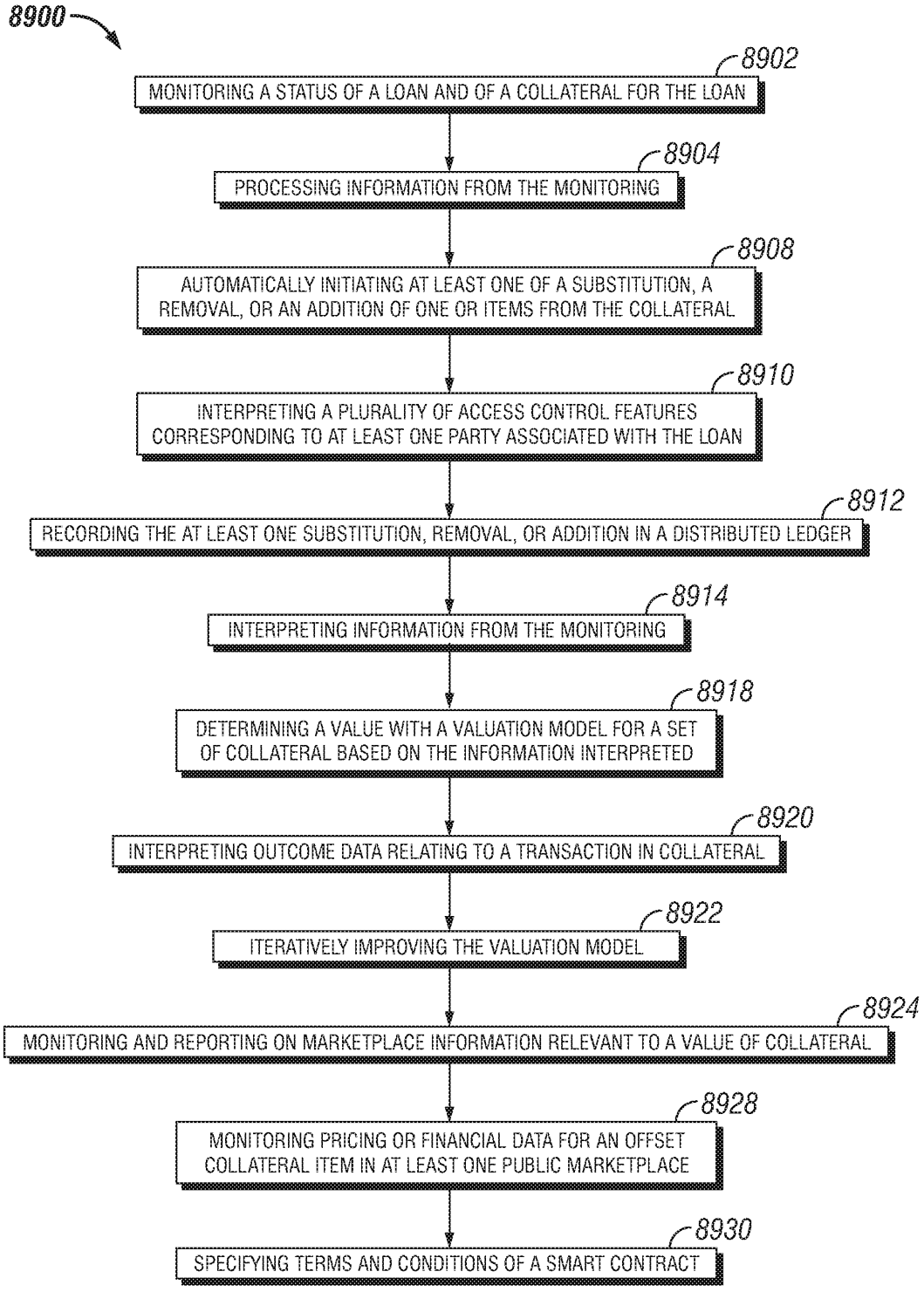
8900
8902
MONITORING A STATUS OF A LOAN AND OF A COLLATERAL FOR THE LOAN
8904
PROCESSING INFORMATION FROM THE MONITORING
8908
AUTOMATICALLY INITIATING AT LEAST ONE OF A SUBSTITUTION, A REMOVAL, OR AN ADDITION OF ONE OR ITEMS FROM THE COLLATERAL
8910
INTERPRETING A PLURALITY OF ACCESS CONTROL FEATURES CORRESPONDING TO AT LEAST ONE PARTY ASSOCIATED WITH THE LOAN
8912
RECORDING THE AT LEAST ONE SUBSTITUTION, REMOVAL, OR ADDITION IN A DISTRIBUTED LEDGER
8914
INTERPRETING INFORMATION FROM THE MONITORING
8918
DETERMINING A VALUE WITH A VALUATION MODEL FOR A SET OF COLLATERAL BASED ON THE INFORMATION INTERPRETED
8920
INTERPRETING OUTCOME DATA RELATING TO A TRANSACTION IN COLLATERAL
8922
ITERATIVELY IMPROVING THE VALUATION MODEL
8924
MONITORING AND REPORTING ON MARKETPLACE INFORMATION RELEVANT TO A VALUE OF COLLATERAL
8928
MONITORING PRICING OR FINANCIAL DATA FOR AN OFFSET COLLATERAL ITEM IN AT LEAST ONE PUBLIC MARKETPLACE
8930
SPECIFYING TERMS AND CONDITIONS OF A SMART CONTRACT

FIG. 89

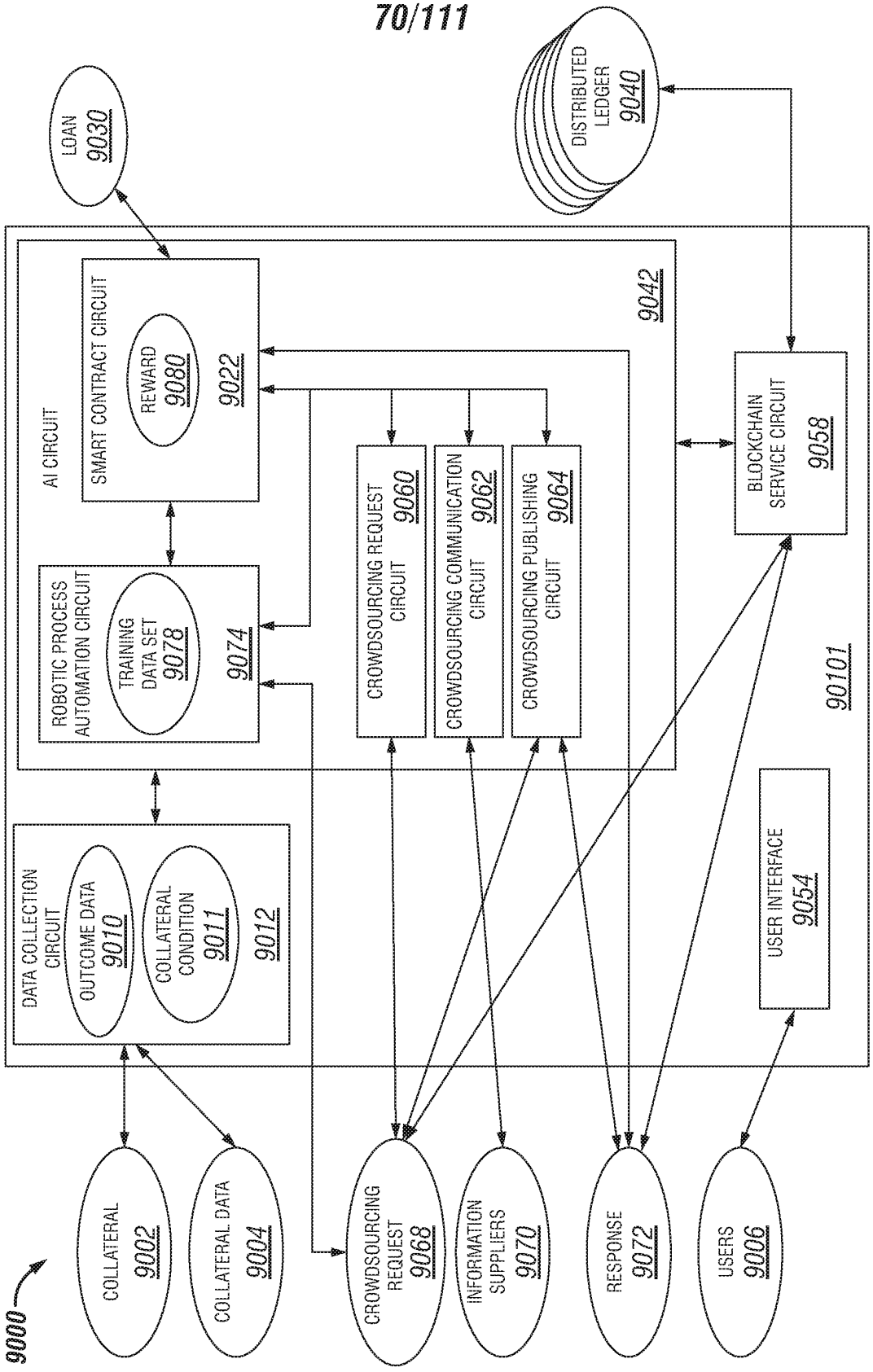
9000
COLLATERAL 9002
COLLATERAL DATA 9004
CROWDSOURCING REQUEST 9068
INFORMATION SUPPLIERS 9070
RESPONSE 9072
USERS 9006
DATA COLLECTION CIRCUIT
OUTCOME DATA 9010
COLLATERAL CONDITION 9011
9012
ROBOTIC PROCESS AUTOMATION CIRCUIT
TRAINING DATA SET 9078
9074
AI CIRCUIT
SMART CONTRACT CIRCUIT
REWARD 9080
9022
CROWDSOURCING REQUEST CIRCUIT 9060
CROWDSOURCING COMMUNICATION CIRCUIT 9062
CROWDSOURCING PUBLISHING CIRCUIT 9064
9042
USER INTERFACE 9054
BLOCKCHAIN SERVICE CIRCUIT 9058
90101
LOAN 9030
DISTRIBUTED LEDGER 9040

FIG. 90

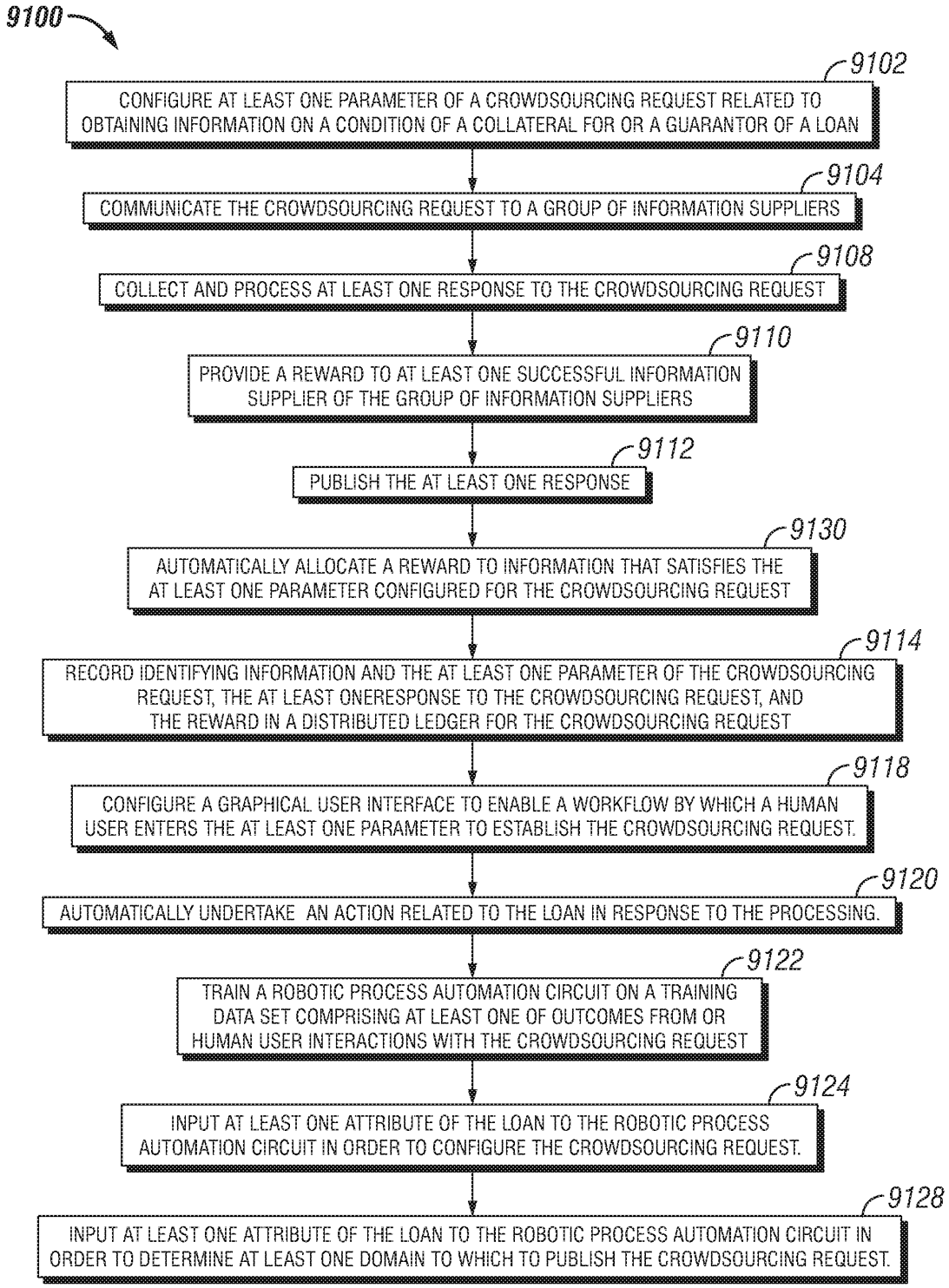
9100
9102
CONFIGURE AT LEAST ONE PARAMETER OF A CROWDSOURCING REQUEST RELATED TO OBTAINING INFORMATION ON A CONDITION OF A COLLATERAL FOR OR A GUARANTOR OF A LOAN
9104
COMMUNICATE THE CROWDSOURCING REQUEST TO A GROUP OF INFORMATION SUPPLIERS
9108
COLLECT AND PROCESS AT LEAST ONE RESPONSE TO THE CROWDSOURCING REQUEST
9110
PROVIDE A REWARD TO AT LEAST ONE SUCCESSFUL INFORMATION SUPPLIER OF THE GROUP OF INFORMATION SUPPLIERS
9112
PUBLISH THE AT LEAST ONE RESPONSE
9130
AUTOMATICALLY ALLOCATE A REWARD TO INFORMATION THAT SATISFIES THE AT LEAST ONE PARAMETER CONFIGURED FOR THE CROWDSOURCING REQUEST
9114
RECORD IDENTIFYING INFORMATION AND THE AT LEAST ONE PARAMETER OF THE CROWDSOURCING REQUEST, THE AT LEAST ONERESPONSE TO THE CROWDSOURCING REQUEST, AND THE REWARD IN A DISTRIBUTED LEDGER FOR THE CROWDSOURCING REQUEST
9118
CONFIGURE A GRAPHICAL USER INTERFACE TO ENABLE A WORKFLOW BY WHICH A HUMAN USER ENTERS THE AT LEAST ONE PARAMETER TO ESTABLISH THE CROWDSOURCING REQUEST.
9120
AUTOMATICALLY UNDERTAKE AN ACTION RELATED TO THE LOAN IN RESPONSE TO THE PROCESSING.
9122
TRAIN A ROBOTIC PROCESS AUTOMATION CIRCUIT ON A TRAINING DATA SET COMPRISING AT LEAST ONE OF OUTCOMES FROM OR HUMAN USER INTERACTIONS WITH THE CROWDSOURCING REQUEST
9124
INPUT AT LEAST ONE ATTRIBUTE OF THE LOAN TO THE ROBOTIC PROCESS AUTOMATION CIRCUIT IN ORDER TO CONFIGURE THE CROWDSOURCING REQUEST.
9128
INPUT AT LEAST ONE ATTRIBUTE OF THE LOAN TO THE ROBOTIC PROCESS AUTOMATION CIRCUIT IN ORDER TO DETERMINE AT LEAST ONE DOMAIN TO WHICH TO PUBLISH THE CROWDSOURCING REQUEST.

FIG. 91

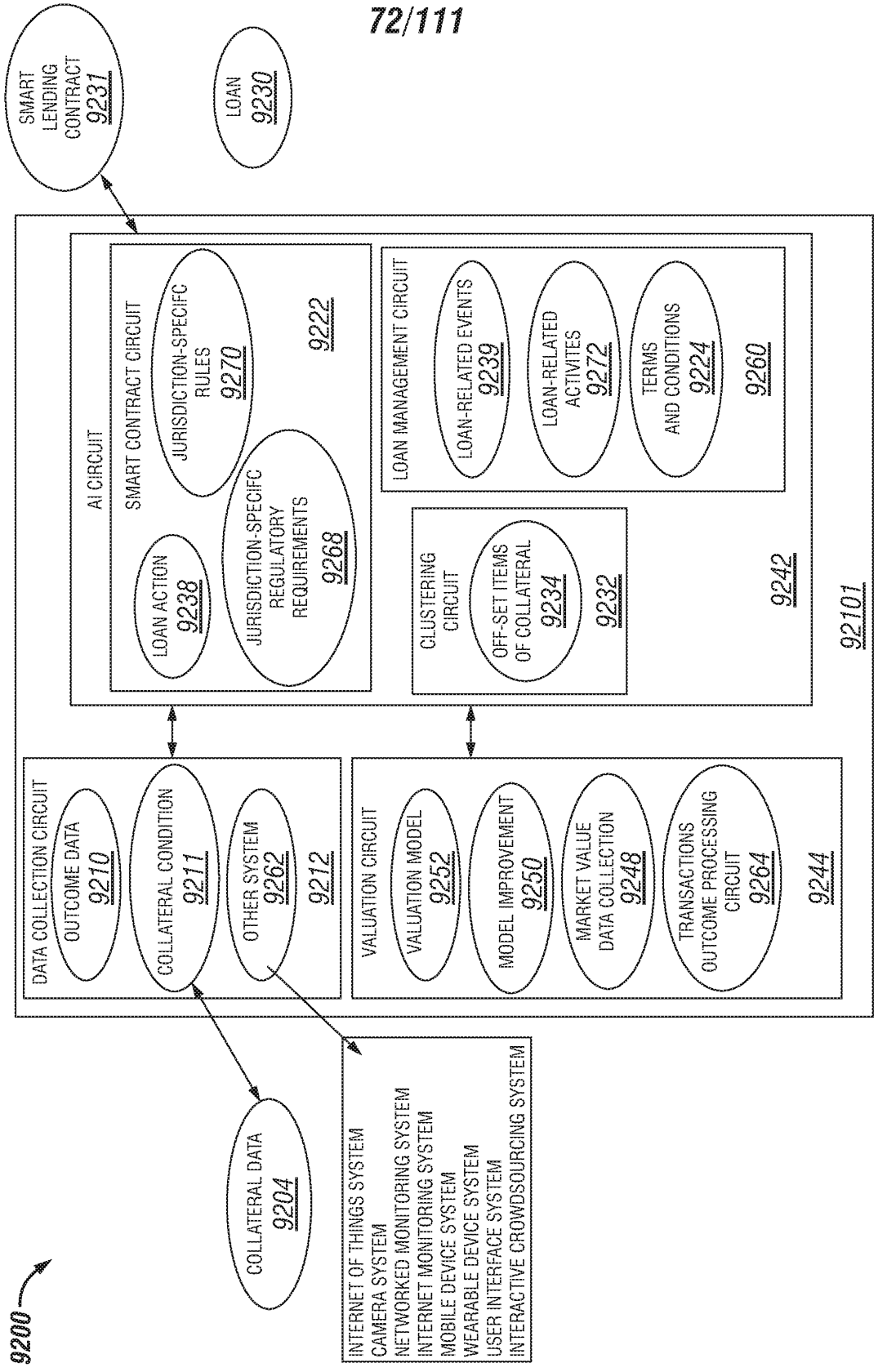
9200
SMART LENDING CONTRACT 9231
LOAN 9230
AI CIRCUIT
SMART CONTRACT CIRCUIT
LOAN ACTION 9238
JURISDICTION-SPECIFC RULES 9270
JURISDICTION-SPECIFC REGULATORY REQUIREMENTS 9268
9222
LOAN MANAGEMENT CIRCUIT
LOAN-RELATED EVENTS 9239
LOAN-RELATED ACTIVITES 9272
TERMS AND CONDITIONS 9224
9260
CLUSTERING CIRCUIT
OFF-SET ITEMS OF COLLATERAL 9234
9232
9242
92101
DATA COLLECTION CIRCUIT
OUTCOME DATA 9210
COLLATERAL CONDITION 9211
OTHER SYSTEM 9262
9212
VALUATION CIRCUIT
VALUATION MODEL 9252
MODEL IMPROVEMENT 9250
MARKET VALUE DATA COLLECTION 9248
TRANSACTIONS OUTCOME PROCESSING CIRCUIT 9264
9244
COLLATERAL DATA 9204
INTERNET OF THINGS SYSTEM
CAMERA SYSTEM
NETWORKED MONITORING SYSTEM
INTERNET MONITORING SYSTEM
MOBILE DEVICE SYSTEM
WEARABLE DEVICE SYSTEM
USER INTERFACE SYSTEM
INTERACTIVE CROWDSOURCING SYSTEM

FIG. 92

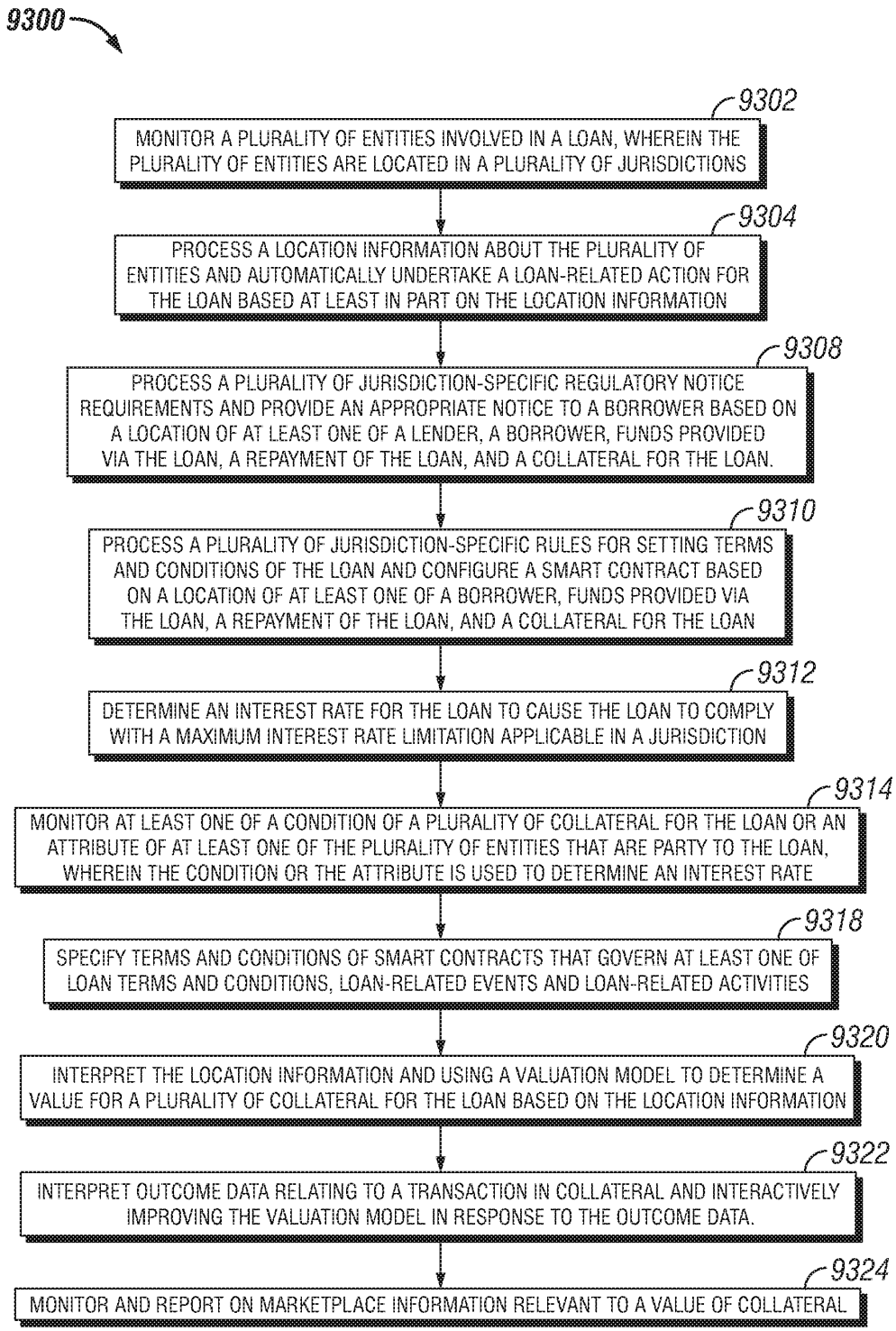
9300
9302
MONITOR A PLURALITY OF ENTITIES INVOLVED IN A LOAN, WHEREIN THE PLURALITY OF ENTITIES ARE LOCATED IN A PLURALITY OF JURISDICTIONS
9304
PROCESS A LOCATION INFORMATION ABOUT THE PLURALITY OF ENTITIES AND AUTOMATICALLY UNDERTAKE A LOAN-RELATED ACTION FOR THE LOAN BASED AT LEAST IN PART ON THE LOCATION INFORMATION
9308
PROCESS A PLURALITY OF JURISDICTION-SPECIFIC REGULATORY NOTICE REQUIREMENTS AND PROVIDE AN APPROPRIATE NOTICE TO A BORROWER BASED ON A LOCATION OF AT LEAST ONE OF A LENDER, A BORROWER, FUNDS PROVIDED VIA THE LOAN, A REPAYMENT OF THE LOAN, AND A COLLATERAL FOR THE LOAN.
9310
PROCESS A PLURALITY OF JURISDICTION-SPECIFIC RULES FOR SETTING TERMS AND CONDITIONS OF THE LOAN AND CONFIGURE A SMART CONTRACT BASED ON A LOCATION OF AT LEAST ONE OF A BORROWER, FUNDS PROVIDED VIA THE LOAN, A REPAYMENT OF THE LOAN, AND A COLLATERAL FOR THE LOAN
9312
DETERMINE AN INTEREST RATE FOR THE LOAN TO CAUSE THE LOAN TO COMPLY WITH A MAXIMUM INTEREST RATE LIMITATION APPLICABLE IN A JURISDICTION
9314
MONITOR AT LEAST ONE OF A CONDITION OF A PLURALITY OF COLLATERAL FOR THE LOAN OR AN ATTRIBUTE OF AT LEAST ONE OF THE PLURALITY OF ENTITIES THAT ARE PARTY TO THE LOAN, WHEREIN THE CONDITION OR THE ATTRIBUTE IS USED TO DETERMINE AN INTEREST RATE
9318
SPECIFY TERMS AND CONDITIONS OF SMART CONTRACTS THAT GOVERN AT LEAST ONE OF LOAN TERMS AND CONDITIONS, LOAN-RELATED EVENTS AND LOAN-RELATED ACTIVITIES
9320
INTERPRET THE LOCATION INFORMATION AND USING A VALUATION MODEL TO DETERMINE A VALUE FOR A PLURALITY OF COLLATERAL FOR THE LOAN BASED ON THE LOCATION INFORMATION
9322
INTERPRET OUTCOME DATA RELATING TO A TRANSACTION IN COLLATERAL AND INTERACTIVELY IMPROVING THE VALUATION MODEL IN RESPONSE TO THE OUTCOME DATA.
9324
MONITOR AND REPORT ON MARKETPLACE INFORMATION RELEVANT TO A VALUE OF COLLATERAL

FIG. 93

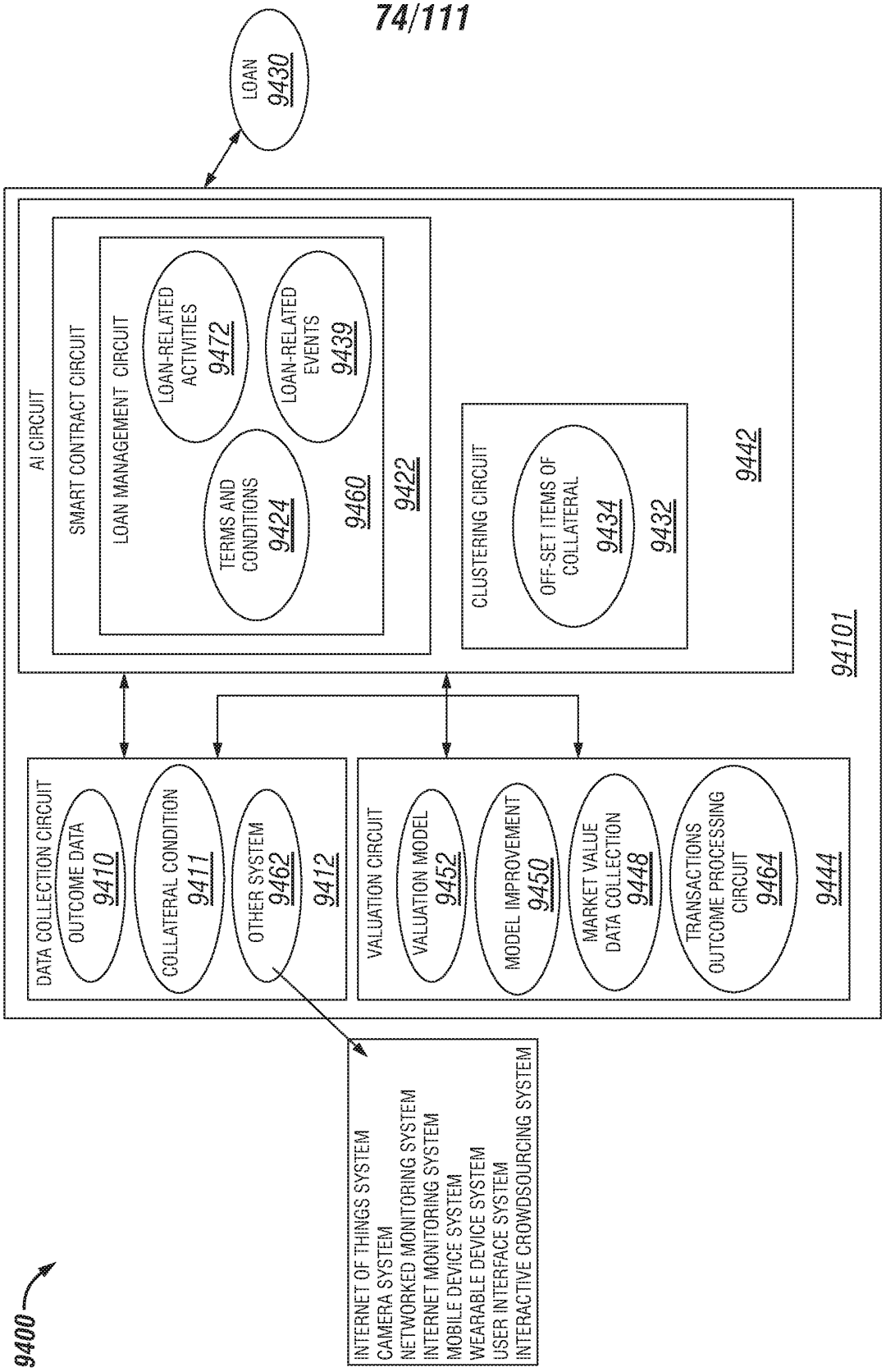
9400
LOAN
9430
AI CIRCUIT
SMART CONTRACT CIRCUIT
LOAN MANAGEMENT CIRCUIT
LOAN-RELATED ACTIVITIES
9472
LOAN-RELATED EVENTS
9439
TERMS AND CONDITIONS
9424
9460
9422
CLUSTERING CIRCUIT
OFF-SET ITEMS OF COLLATERAL
9434
9432
9442
94101
DATA COLLECTION CIRCUIT
OUTCOME DATA
9410
COLLATERAL CONDITION
9411
OTHER SYSTEM
9462
9412
VALUATION CIRCUIT
VALUATION MODEL
9452
MODEL IMPROVEMENT
9450
MARKET VALUE DATA COLLECTION
9448
TRANSACTIONS OUTCOME PROCESSING CIRCUIT
9464
9444
INTERNET OF THINGS SYSTEM
CAMERA SYSTEM
NETWORKED MONITORING SYSTEM
INTERNET MONITORING SYSTEM
MOBILE DEVICE SYSTEM
WEARABLE DEVICE SYSTEM
USER INTERFACE SYSTEM
INTERACTIVE CROWDSOURCING SYSTEM

FIG. 94

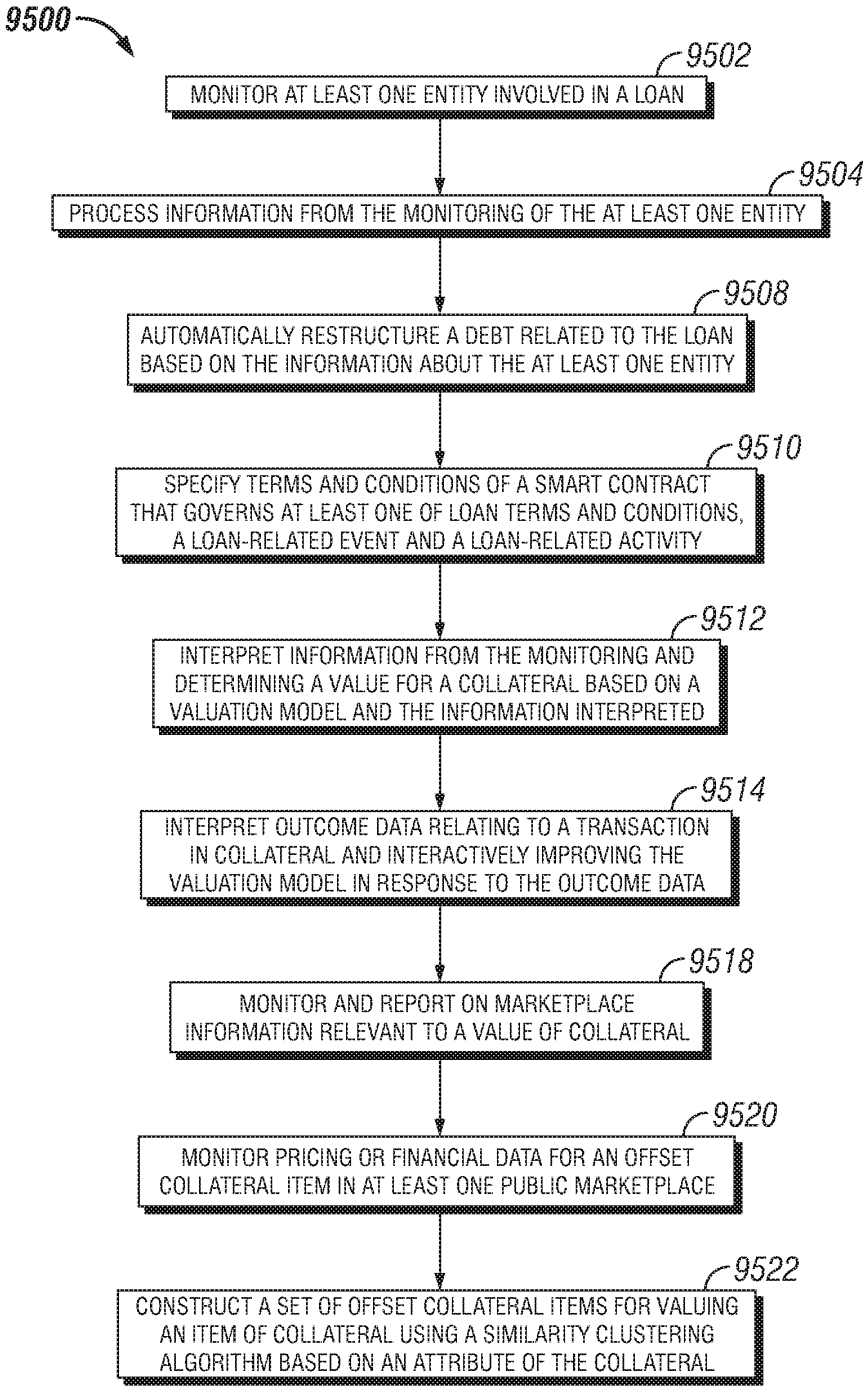
9500
9502
MONITOR AT LEAST ONE ENTITY INVOLVED IN A LOAN
9504
PROCESS INFORMATION FROM THE MONITORING OF THE AT LEAST ONE ENTITY
9508
AUTOMATICALLY RESTRUCTURE A DEBT RELATED TO THE LOAN BASED ON THE INFORMATION ABOUT THE AT LEAST ONE ENTITY
9510
SPECIFY TERMS AND CONDITIONS OF A SMART CONTRACT THAT GOVERNS AT LEAST ONE OF LOAN TERMS AND CONDITIONS, A LOAN-RELATED EVENT AND A LOAN-RELATED ACTIVITY
9512
INTERPRET INFORMATION FROM THE MONITORING AND DETERMINING A VALUE FOR A COLLATERAL BASED ON A VALUATION MODEL AND THE INFORMATION INTERPRETED
9514
INTERPRET OUTCOME DATA RELATING TO A TRANSACTION IN COLLATERAL AND INTERACTIVELY IMPROVING THE VALUATION MODEL IN RESPONSE TO THE OUTCOME DATA
9518
MONITOR AND REPORT ON MARKETPLACE INFORMATION RELEVANT TO A VALUE OF COLLATERAL
9520
MONITOR PRICING OR FINANCIAL DATA FOR AN OFFSET COLLATERAL ITEM IN AT LEAST ONE PUBLIC MARKETPLACE
9522
CONSTRUCT A SET OF OFFSET COLLATERAL ITEMS FOR VALUING AN ITEM OF COLLATERAL USING A SIMILARITY CLUSTERING ALGORITHM BASED ON AN ATTRIBUTE OF THE COLLATERAL

FIG. 95

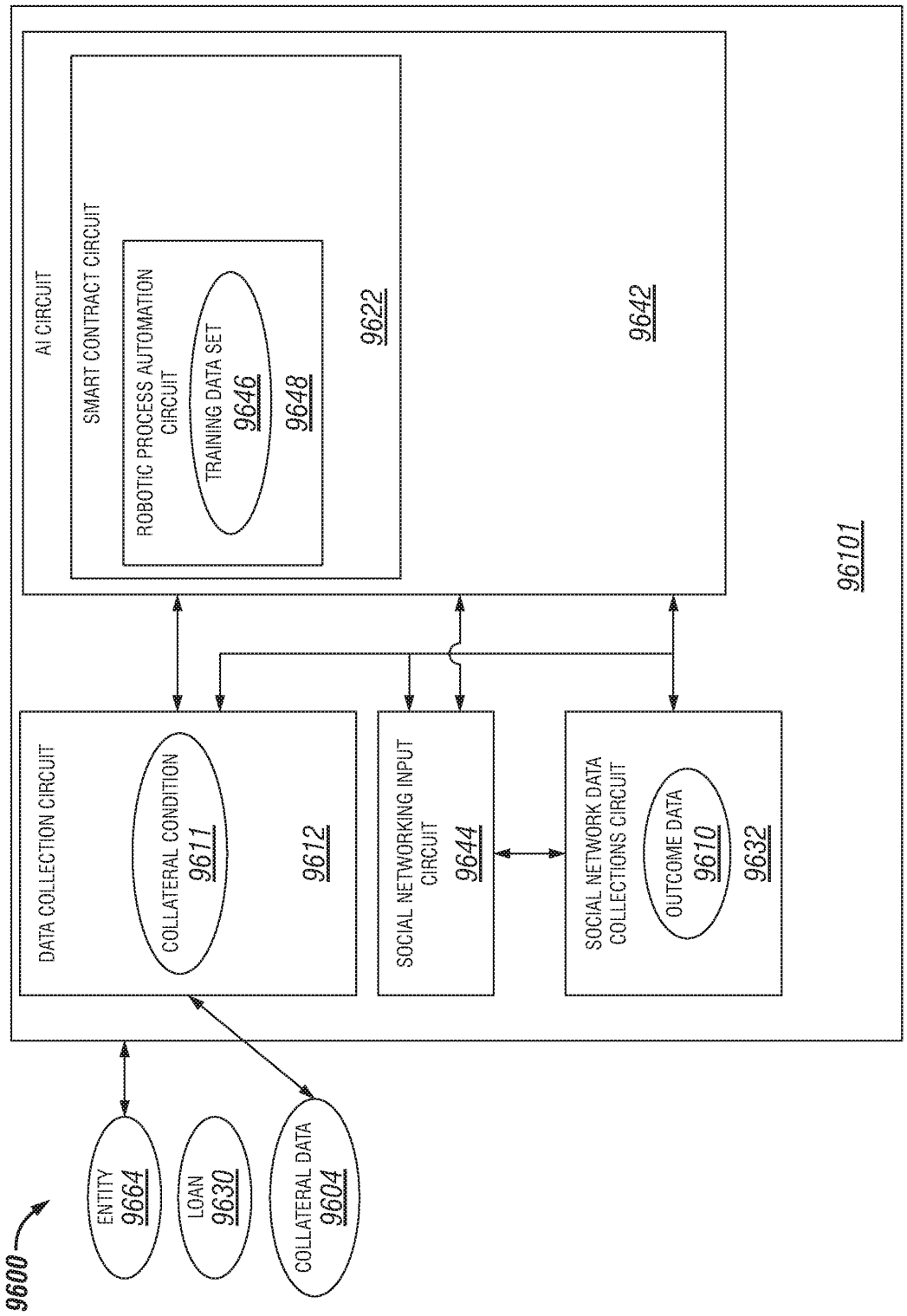
9600
ENTITY
9664
LOAN
9630
COLLATERAL DATA
9604
96101
DATA COLLECTION CIRCUIT
COLLATERAL CONDITION
9611
9612
SOCIAL NETWORKING INPUT
CIRCUIT
9644
SOCIAL NETWORK DATA
COLLECTIONS CIRCUIT
OUTCOME DATA
9610
9632
AI CIRCUIT
SMART CONTRACT CIRCUIT
ROBOTIC PROCESS AUTOMATION
CIRCUIT
TRAINING DATA SET
9646
9648
9622
9642

FIG. 96

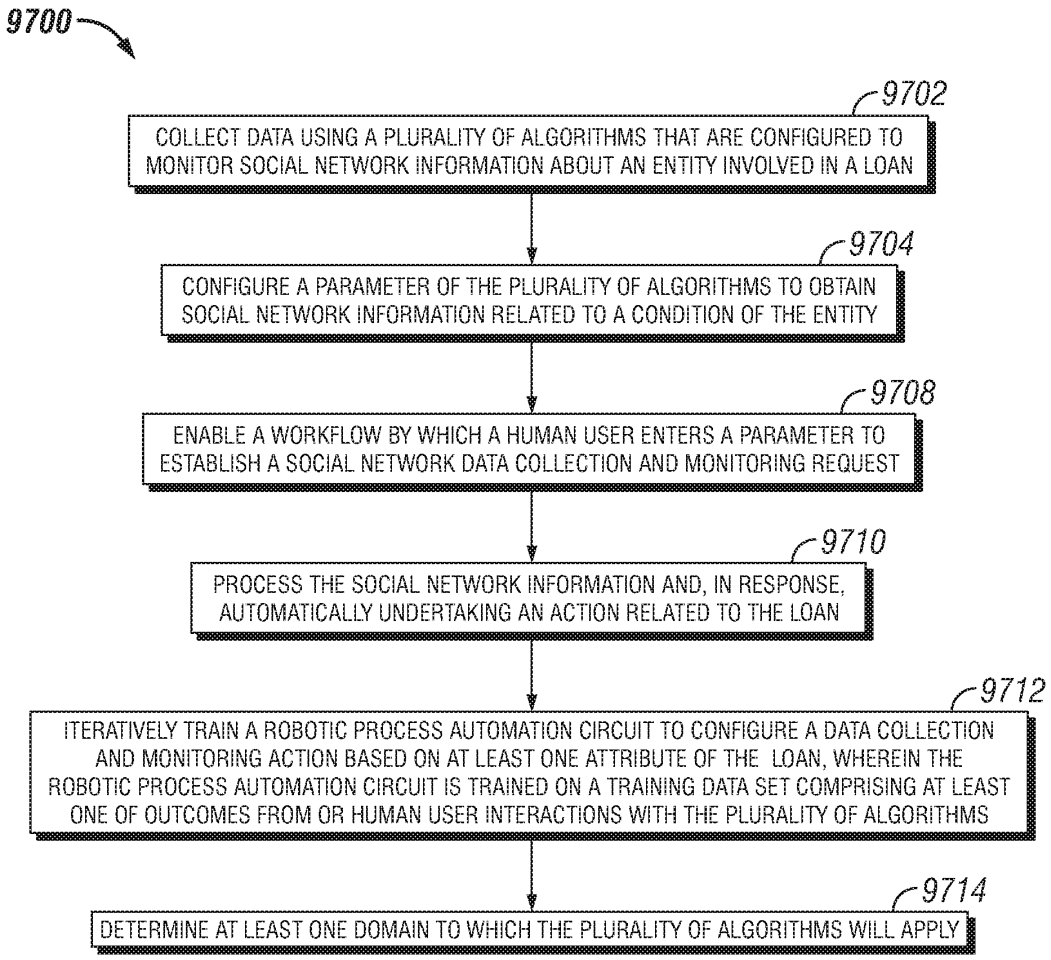
9700
9702
COLLECT DATA USING A PLURALITY OF ALGORITHMS THAT ARE CONFIGURED TO MONITOR SOCIAL NETWORK INFORMATION ABOUT AN ENTITY INVOLVED IN A LOAN
9704
CONFIGURE A PARAMETER OF THE PLURALITY OF ALGORITHMS TO OBTAIN SOCIAL NETWORK INFORMATION RELATED TO A CONDITION OF THE ENTITY
9708
ENABLE A WORKFLOW BY WHICH A HUMAN USER ENTERS A PARAMETER TO ESTABLISH A SOCIAL NETWORK DATA COLLECTION AND MONITORING REQUEST
9710
PROCESS THE SOCIAL NETWORK INFORMATION AND, IN RESPONSE, AUTOMATICALLY UNDERTAKING AN ACTION RELATED TO THE LOAN
9712
ITERATIVELY TRAIN A ROBOTIC PROCESS AUTOMATION CIRCUIT TO CONFIGURE A DATA COLLECTION AND MONITORING ACTION BASED ON AT LEAST ONE ATTRIBUTE OF THE LOAN, WHEREIN THE ROBOTIC PROCESS AUTOMATION CIRCUIT IS TRAINED ON A TRAINING DATA SET COMPRISING AT LEAST ONE OF OUTCOMES FROM OR HUMAN USER INTERACTIONS WITH THE PLURALITY OF ALGORITHMS
9714
DETERMINE AT LEAST ONE DOMAIN TO WHICH THE PLURALITY OF ALGORITHMS WILL APPLY

FIG. 97

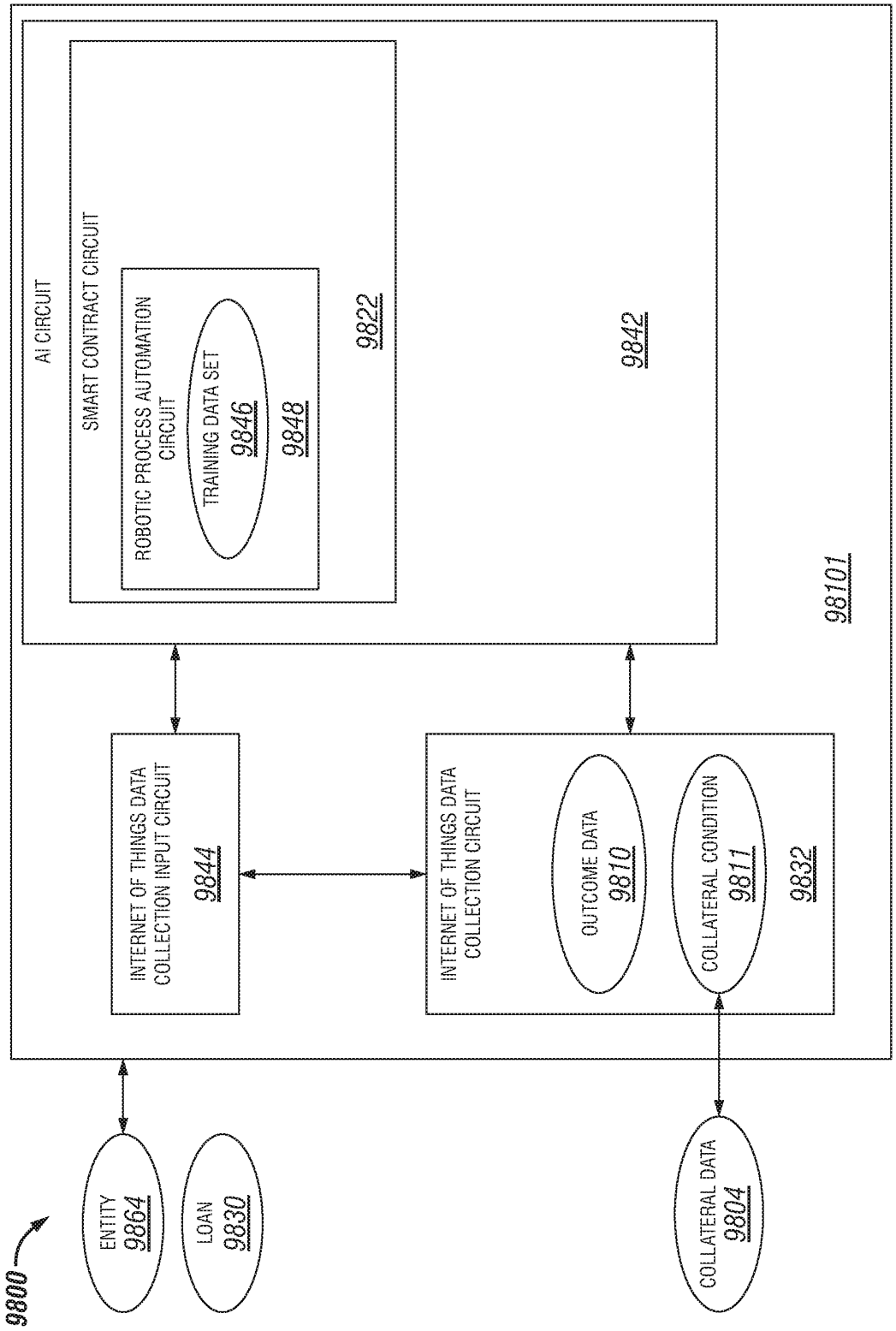
9800
ENTITY
9864
LOAN
9830
COLLATERAL DATA
9804
98101
AI CIRCUIT
SMART CONTRACT CIRCUIT
ROBOTIC PROCESS AUTOMATION CIRCUIT
TRAINING DATA SET
9846
9848
9822
9842
INTERNET OF THINGS DATA COLLECTION INPUT CIRCUIT
9844
INTERNET OF THINGS DATA COLLECTION CIRCUIT
OUTCOME DATA
9810
COLLATERAL CONDITION
9811
9832

FIG. 98

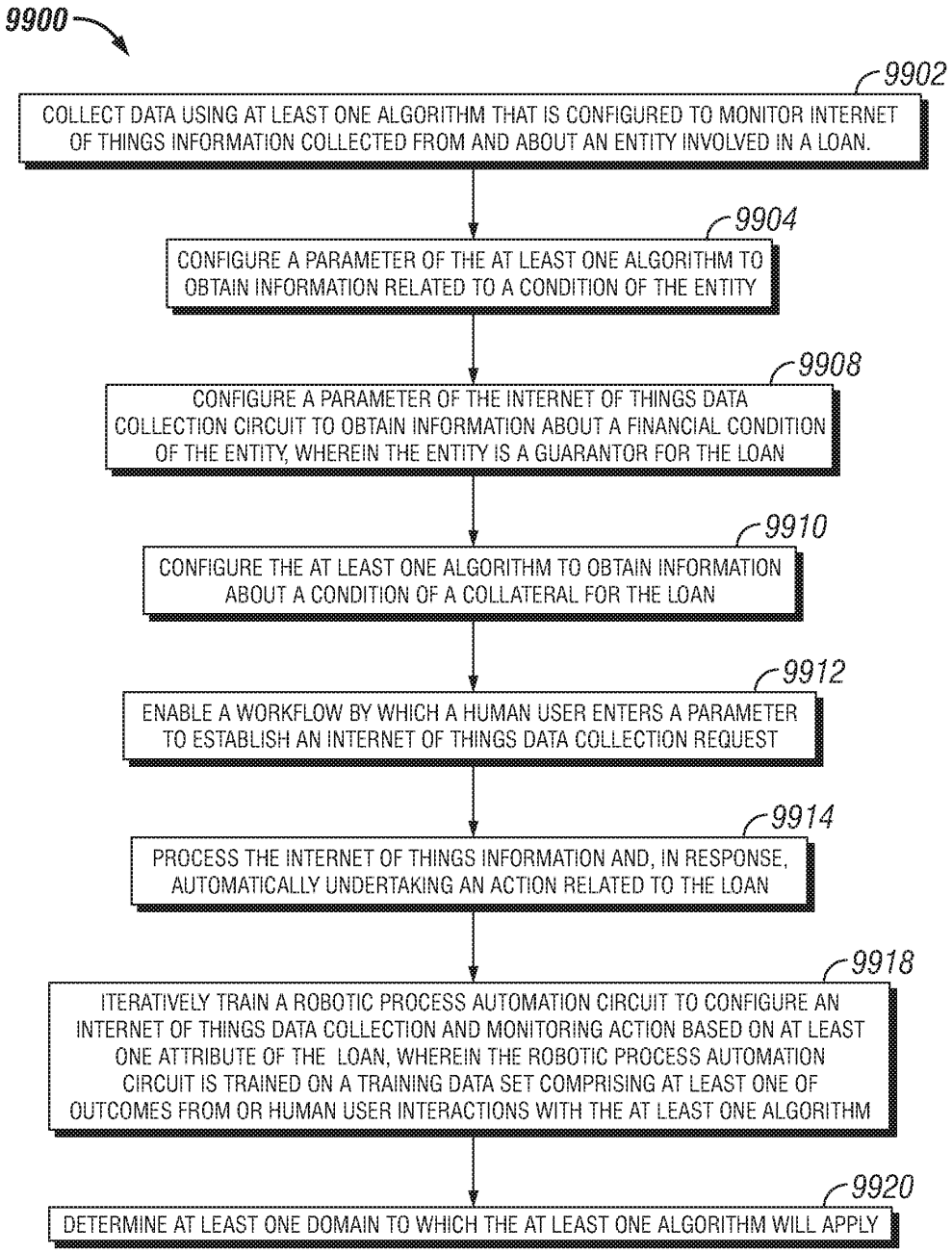
9900
9902
COLLECT DATA USING AT LEAST ONE ALGORITHM THAT IS CONFIGURED TO MONITOR INTERNET OF THINGS INFORMATION COLLECTED FROM AND ABOUT AN ENTITY INVOLVED IN A LOAN.
9904
CONFIGURE A PARAMETER OF THE AT LEAST ONE ALGORITHM TO OBTAIN INFORMATION RELATED TO A CONDITION OF THE ENTITY
9908
CONFIGURE A PARAMETER OF THE INTERNET OF THINGS DATA COLLECTION CIRCUIT TO OBTAIN INFORMATION ABOUT A FINANCIAL CONDITION OF THE ENTITY, WHEREIN THE ENTITY IS A GUARANTOR FOR THE LOAN
9910
CONFIGURE THE AT LEAST ONE ALGORITHM TO OBTAIN INFORMATION ABOUT A CONDITION OF A COLLATERAL FOR THE LOAN
9912
ENABLE A WORKFLOW BY WHICH A HUMAN USER ENTERS A PARAMETER TO ESTABLISH AN INTERNET OF THINGS DATA COLLECTION REQUEST
9914
PROCESS THE INTERNET OF THINGS INFORMATION AND, IN RESPONSE, AUTOMATICALLY UNDERTAKING AN ACTION RELATED TO THE LOAN
9918
ITERATIVELY TRAIN A ROBOTIC PROCESS AUTOMATION CIRCUIT TO CONFIGURE AN INTERNET OF THINGS DATA COLLECTION AND MONITORING ACTION BASED ON AT LEAST ONE ATTRIBUTE OF THE LOAN, WHEREIN THE ROBOTIC PROCESS AUTOMATION CIRCUIT IS TRAINED ON A TRAINING DATA SET COMPRISING AT LEAST ONE OF OUTCOMES FROM OR HUMAN USER INTERACTIONS WITH THE AT LEAST ONE ALGORITHM
9920
DETERMINE AT LEAST ONE DOMAIN TO WHICH THE AT LEAST ONE ALGORITHM WILL APPLY

FIG. 99

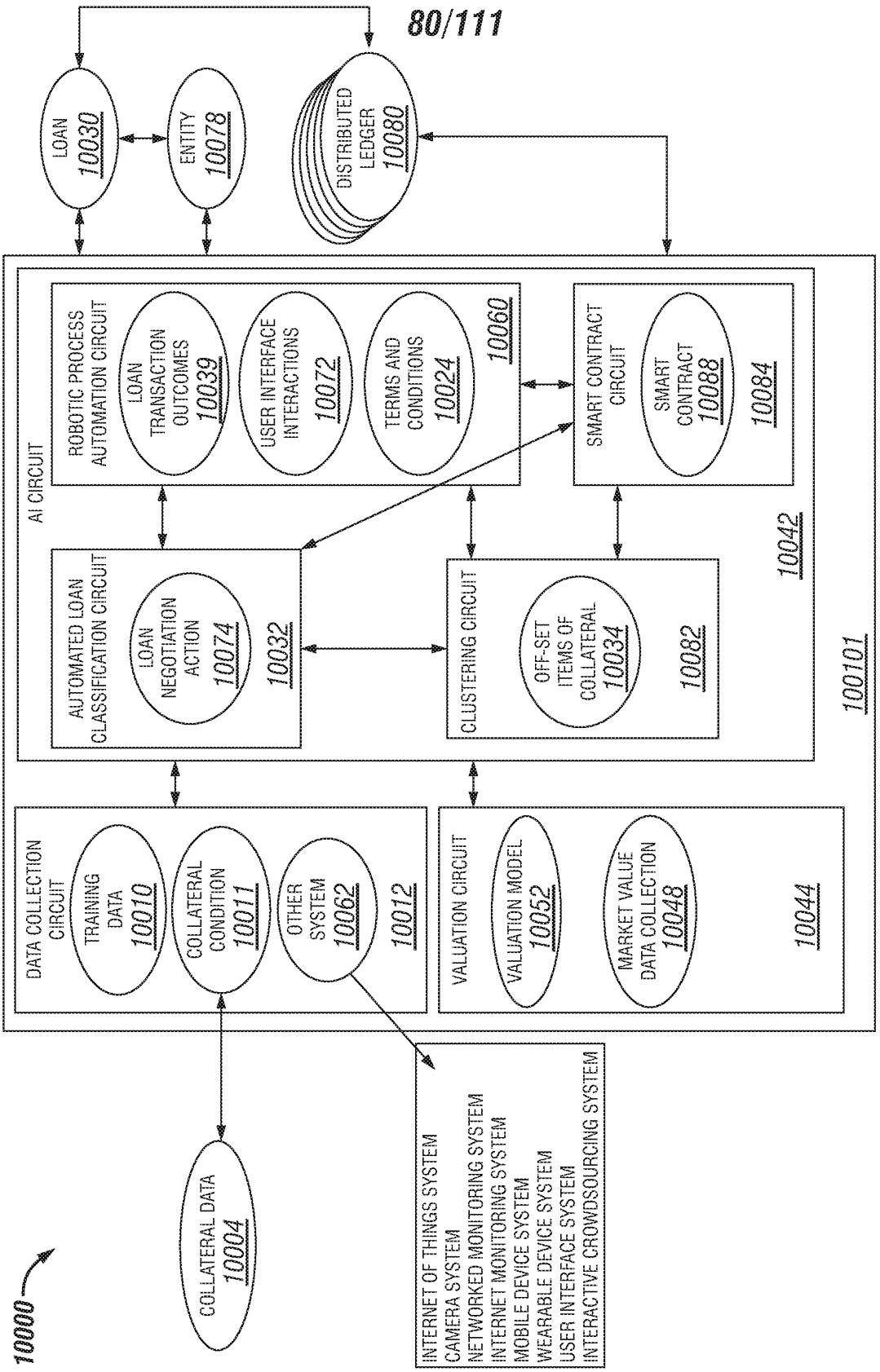
80/111
LOAN 10030
ENTITY 10078
DISTRIBUTED LEDGER 10080
AI CIRCUIT
ROBOTIC PROCESS AUTOMATION CIRCUIT
LOAN TRANSACTION OUTCOMES 10039
USER INTERFACE INTERACTIONS 10072
TERMS AND CONDITIONS 10024
10060
SMART CONTRACT CIRCUIT
SMART CONTRACT 10088
10084
AUTOMATED LOAN CLASSIFICATION CIRCUIT
LOAN NEGOTIATION ACTION 10074
10032
CLUSTERING CIRCUIT
OFF-SET ITEMS OF COLLATERAL 10034
10082
10042
100101
DATA COLLECTION CIRCUIT
TRAINING DATA 10010
COLLATERAL CONDITION 10011
OTHER SYSTEM 10062
10012
VALUATION CIRCUIT
VALUATION MODEL 10052
MARKET VALUE DATA COLLECTION 10048
10044
10000
COLLATERAL DATA 10004
INTERNET OF THINGS SYSTEM
CAMERA SYSTEM
NETWORKED MONITORING SYSTEM
INTERNET MONITORING SYSTEM
MOBILE DEVICE SYSTEM
WEARABLE DEVICE SYSTEM
USER INTERFACE SYSTEM
INTERACTIVE CROWDSOURCING SYSTEM

FIG. 100

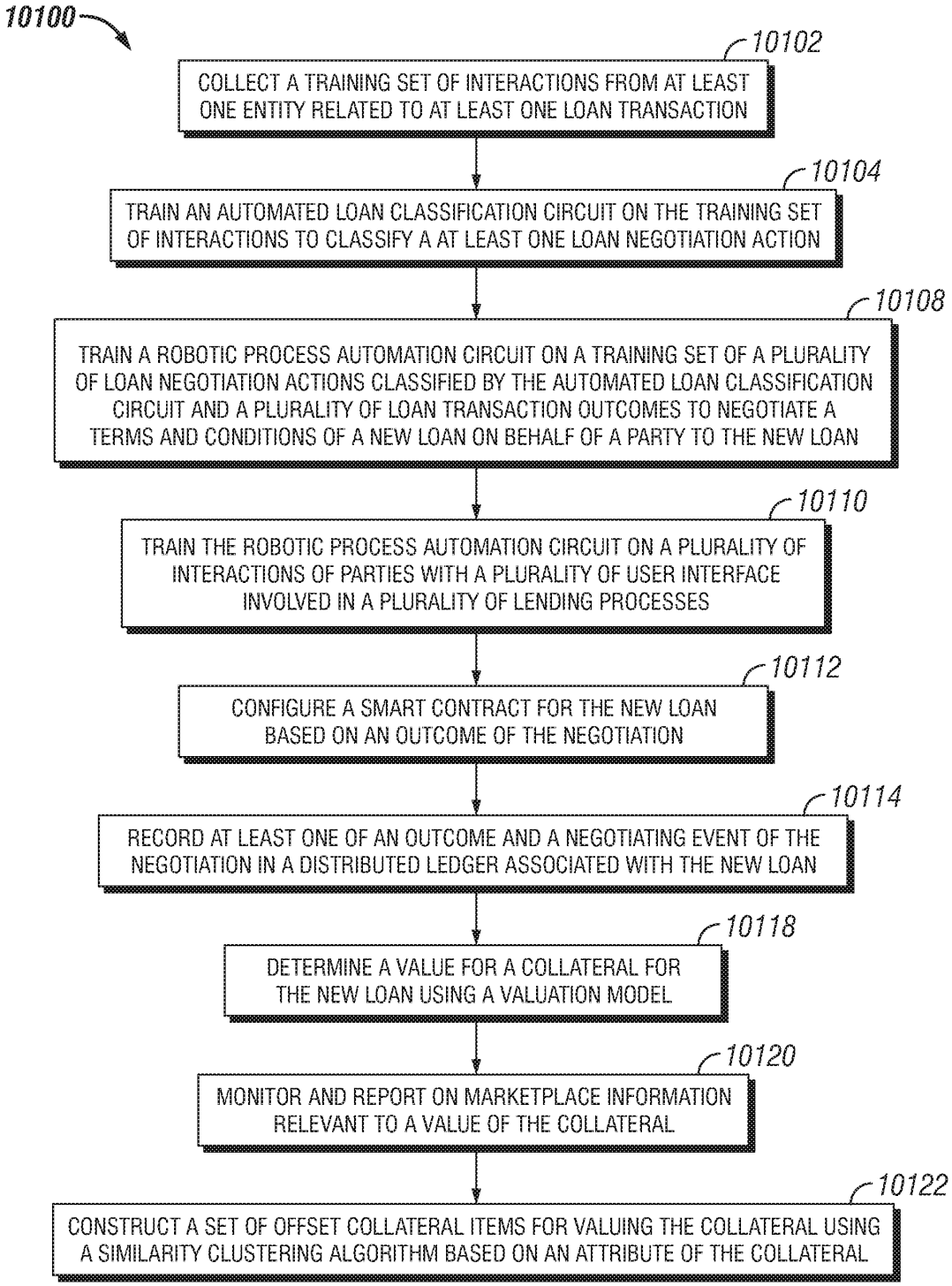
10100
10102
COLLECT A TRAINING SET OF INTERACTIONS FROM AT LEAST ONE ENTITY RELATED TO AT LEAST ONE LOAN TRANSACTION
10104
TRAIN AN AUTOMATED LOAN CLASSIFICATION CIRCUIT ON THE TRAINING SET OF INTERACTIONS TO CLASSIFY A AT LEAST ONE LOAN NEGOTIATION ACTION
10108
TRAIN A ROBOTIC PROCESS AUTOMATION CIRCUIT ON A TRAINING SET OF A PLURALITY OF LOAN NEGOTIATION ACTIONS CLASSIFIED BY THE AUTOMATED LOAN CLASSIFICATION CIRCUIT AND A PLURALITY OF LOAN TRANSACTION OUTCOMES TO NEGOTIATE A TERMS AND CONDITIONS OF A NEW LOAN ON BEHALF OF A PARTY TO THE NEW LOAN
10110
TRAIN THE ROBOTIC PROCESS AUTOMATION CIRCUIT ON A PLURALITY OF INTERACTIONS OF PARTIES WITH A PLURALITY OF USER INTERFACE INVOLVED IN A PLURALITY OF LENDING PROCESSES
10112
CONFIGURE A SMART CONTRACT FOR THE NEW LOAN BASED ON AN OUTCOME OF THE NEGOTIATION
10114
RECORD AT LEAST ONE OF AN OUTCOME AND A NEGOTIATING EVENT OF THE NEGOTIATION IN A DISTRIBUTED LEDGER ASSOCIATED WITH THE NEW LOAN
10118
DETERMINE A VALUE FOR A COLLATERAL FOR THE NEW LOAN USING A VALUATION MODEL
10120
MONITOR AND REPORT ON MARKETPLACE INFORMATION RELEVANT TO A VALUE OF THE COLLATERAL
10122
CONSTRUCT A SET OF OFFSET COLLATERAL ITEMS FOR VALUING THE COLLATERAL USING A SIMILARITY CLUSTERING ALGORITHM BASED ON AN ATTRIBUTE OF THE COLLATERAL

FIG. 101

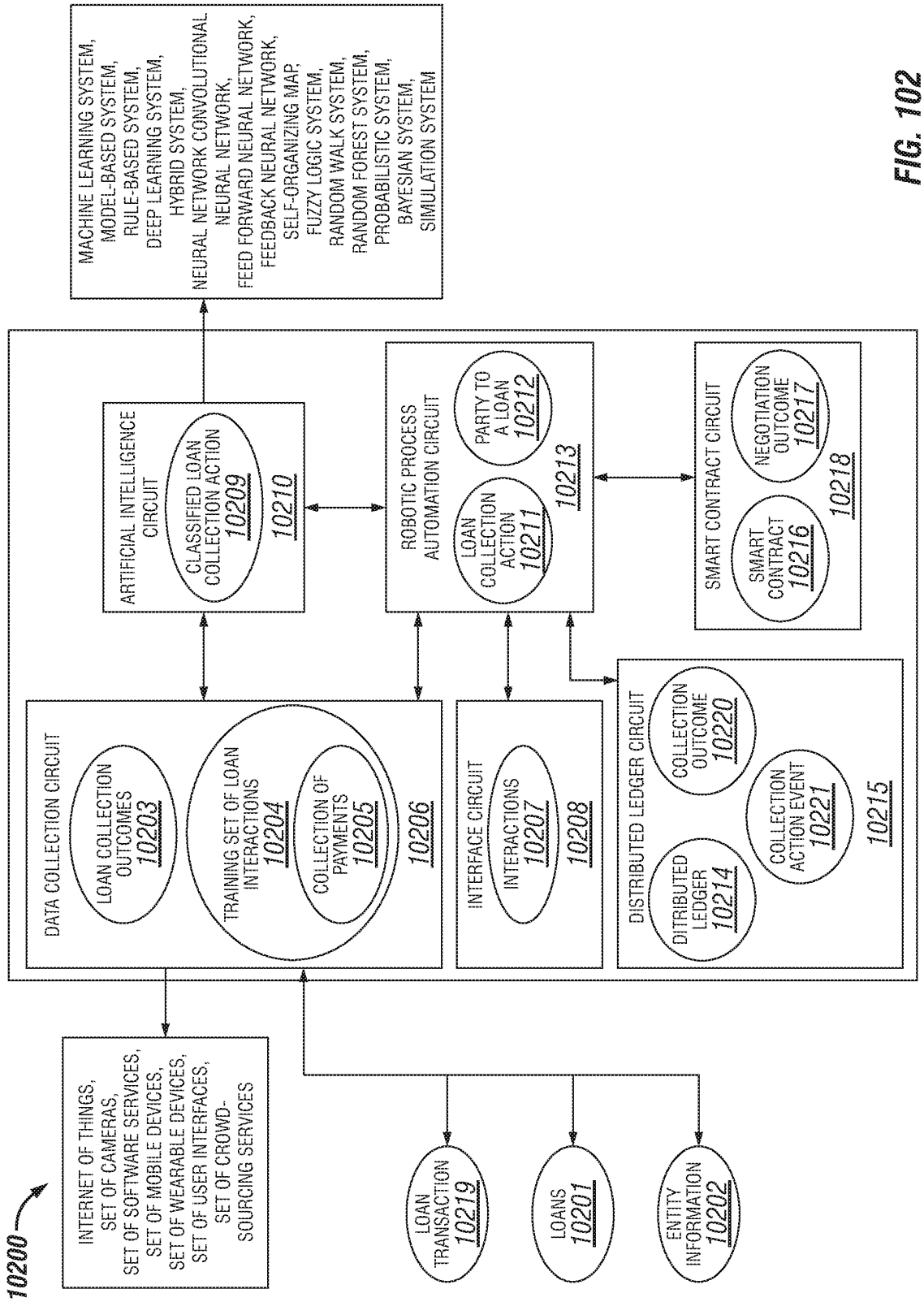
10200
INTERNET OF THINGS, SET OF CAMERAS, SET OF SOFTWARE SERVICES, SET OF MOBILE DEVICES, SET OF WEARABLE DEVICES, SET OF USER INTERFACES, SET OF CROWD-SOURCING SERVICES
LOAN TRANSACTION 10219
LOANS 10201
ENTITY INFORMATION 10202
DATA COLLECTION CIRCUIT
LOAN COLLECTION OUTCOMES 10203
TRAINING SET OF LOAN INTERACTIONS 10204
COLLECTION OF PAYMENTS 10205
10206
INTERFACE CIRCUIT
INTERACTIONS 10207
10208
DISTRIBUTED LEDGER CIRCUIT
DITRIBUTED LEDGER 10214
COLLECTION OUTCOME 10220
COLLECTION ACTION EVENT 10221
10215
ARTIFICIAL INTELLIGENCE CIRCUIT
CLASSIFIED LOAN COLLECTION ACTION 10209
10210
ROBOTIC PROCESS AUTOMATION CIRCUIT
LOAN COLLECTION ACTION 10211
PARTY TO A LOAN 10212
10213
SMART CONTRACT CIRCUIT
SMART CONTRACT 10216
NEGOTIATION OUTCOME 10217
10218
MACHINE LEARNING SYSTEM, MODEL-BASED SYSTEM, RULE-BASED SYSTEM, DEEP LEARNING SYSTEM, HYBRID SYSTEM, NEURAL NETWORK CONVOLUTIONAL NEURAL NETWORK, FEED FORWARD NEURAL NETWORK, FEEDBACK NEURAL NETWORK, SELF-ORGANIZING MAP, FUZZY LOGIC SYSTEM, RANDOM WALK SYSTEM, RANDOM FOREST SYSTEM, PROBABILISTIC SYSTEM, BAYESIAN SYSTEM, SIMULATION SYSTEM

FIG. 102

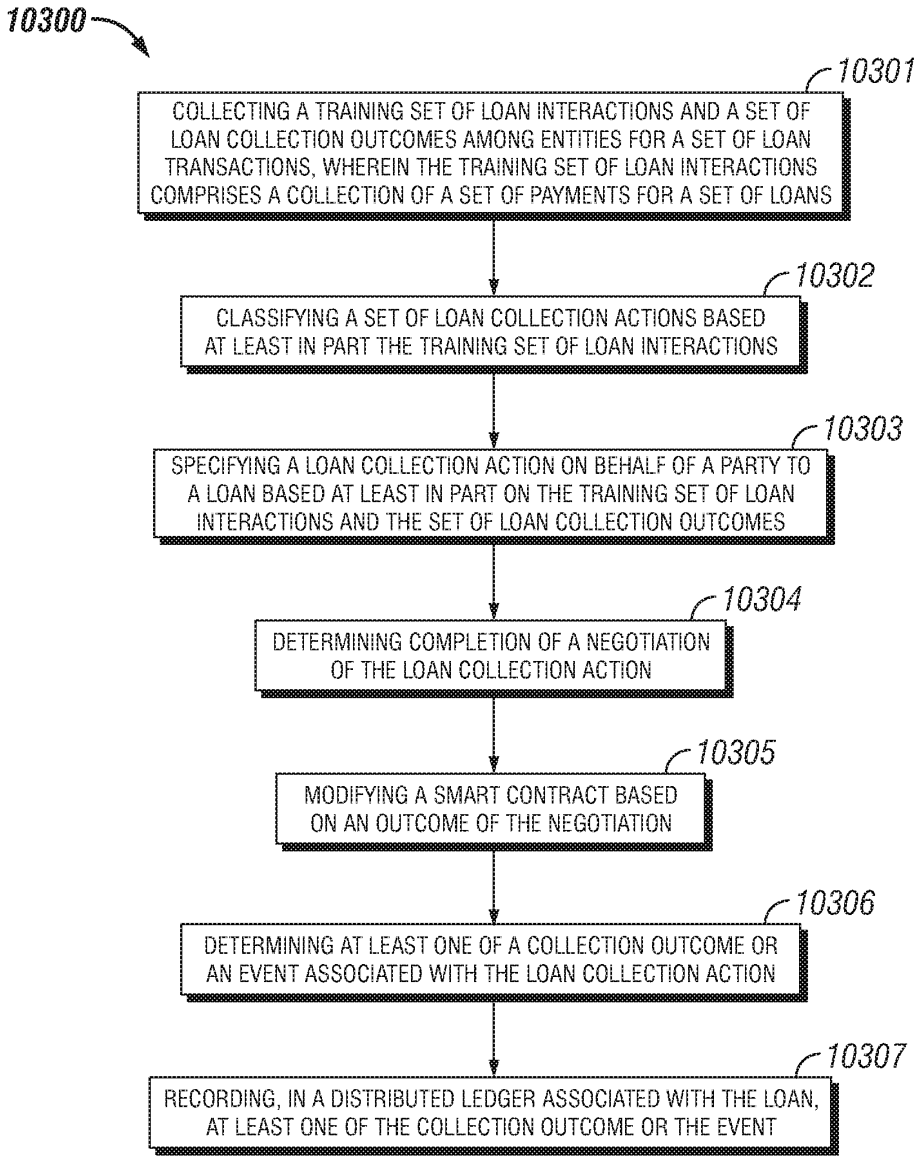
10300
10301
COLLECTING A TRAINING SET OF LOAN INTERACTIONS AND A SET OF LOAN COLLECTION OUTCOMES AMONG ENTITIES FOR A SET OF LOAN TRANSACTIONS, WHEREIN THE TRAINING SET OF LOAN INTERACTIONS COMPRISES A COLLECTION OF A SET OF PAYMENTS FOR A SET OF LOANS
10302
CLASSIFYING A SET OF LOAN COLLECTION ACTIONS BASED AT LEAST IN PART THE TRAINING SET OF LOAN INTERACTIONS
10303
SPECIFYING A LOAN COLLECTION ACTION ON BEHALF OF A PARTY TO A LOAN BASED AT LEAST IN PART ON THE TRAINING SET OF LOAN INTERACTIONS AND THE SET OF LOAN COLLECTION OUTCOMES
10304
DETERMINING COMPLETION OF A NEGOTIATION OF THE LOAN COLLECTION ACTION
10305
MODIFYING A SMART CONTRACT BASED ON AN OUTCOME OF THE NEGOTIATION
10306
DETERMINING AT LEAST ONE OF A COLLECTION OUTCOME OR AN EVENT ASSOCIATED WITH THE LOAN COLLECTION ACTION
10307
RECORDING, IN A DISTRIBUTED LEDGER ASSOCIATED WITH THE LOAN, AT LEAST ONE OF THE COLLECTION OUTCOME OR THE EVENT

FIG. 103

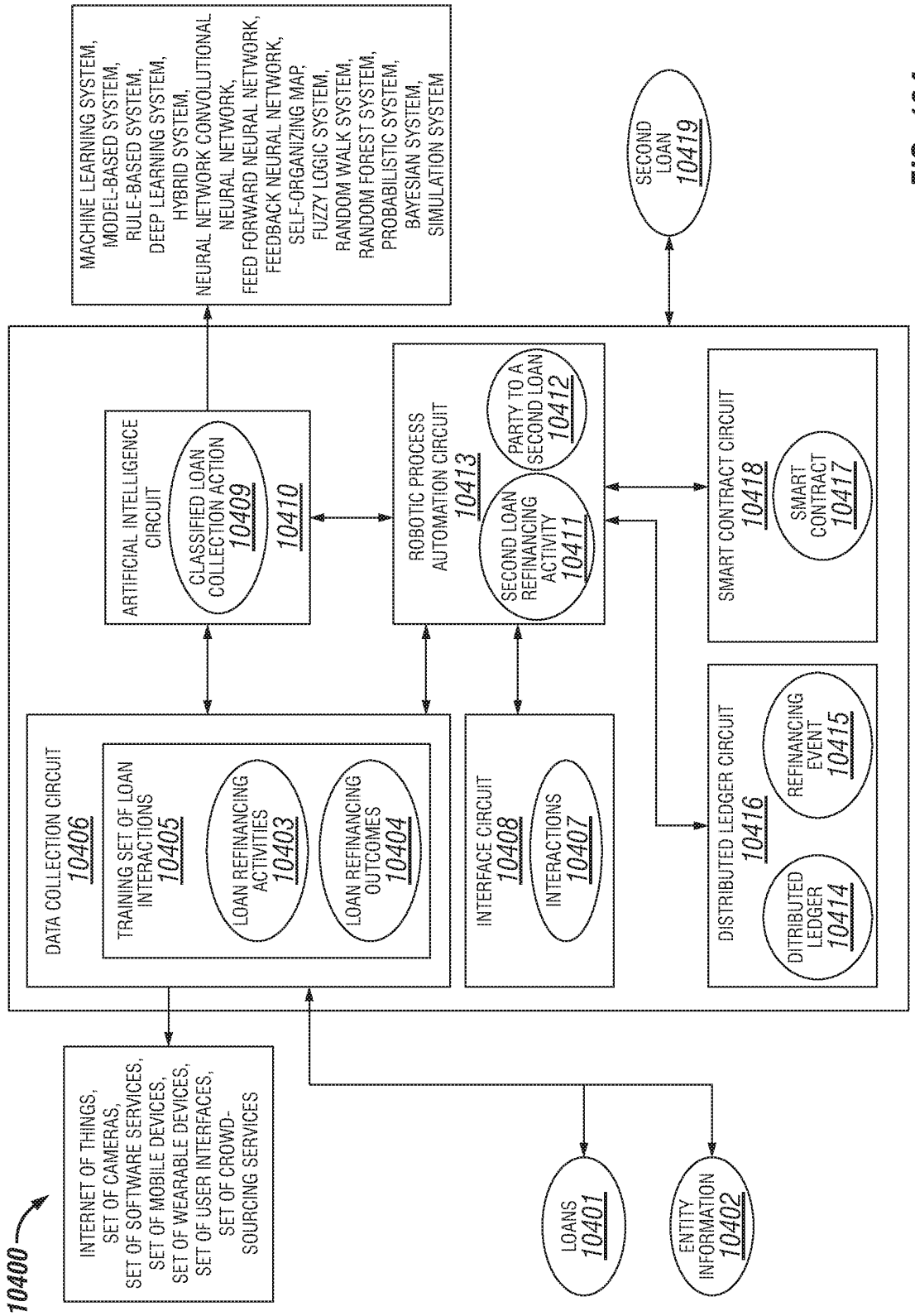
10400
INTERNET OF THINGS, SET OF CAMERAS, SET OF SOFTWARE SERVICES, SET OF MOBILE DEVICES, SET OF WEARABLE DEVICES, SET OF USER INTERFACES, SET OF CROWD-SOURCING SERVICES
LOANS 10401
ENTITY INFORMATION 10402
DATA COLLECTION CIRCUIT 10406
TRAINING SET OF LOAN INTERACTIONS 10405
LOAN REFINANCING ACTIVITIES 10403
LOAN REFINANCING OUTCOMES 10404
INTERFACE CIRCUIT 10408
INTERACTIONS 10407
ARTIFICIAL INTELLIGENCE CIRCUIT 10410
CLASSIFIED LOAN COLLECTION ACTION 10409
ROBOTIC PROCESS AUTOMATION CIRCUIT 10413
SECOND LOAN REFINANCING ACTIVITY 10411
PARTY TO A SECOND LOAN 10412
DISTRIBUTED LEDGER CIRCUIT 10416
DITRIBUTED LEDGER 10414
REFINANCING EVENT 10415
SMART CONTRACT CIRCUIT 10418
SMART CONTRACT 10417
MACHINE LEARNING SYSTEM, MODEL-BASED SYSTEM, RULE-BASED SYSTEM, DEEP LEARNING SYSTEM, HYBRID SYSTEM, NEURAL NETWORK CONVOLUTIONAL NEURAL NETWORK, FEED FORWARD NEURAL NETWORK, FEEDBACK NEURAL NETWORK, SELF-ORGANIZING MAP, FUZZY LOGIC SYSTEM, RANDOM WALK SYSTEM, RANDOM FOREST SYSTEM, PROBABILISTIC SYSTEM, BAYESIAN SYSTEM, SIMULATION SYSTEM
SECOND LOAN 10419

FIG. 104

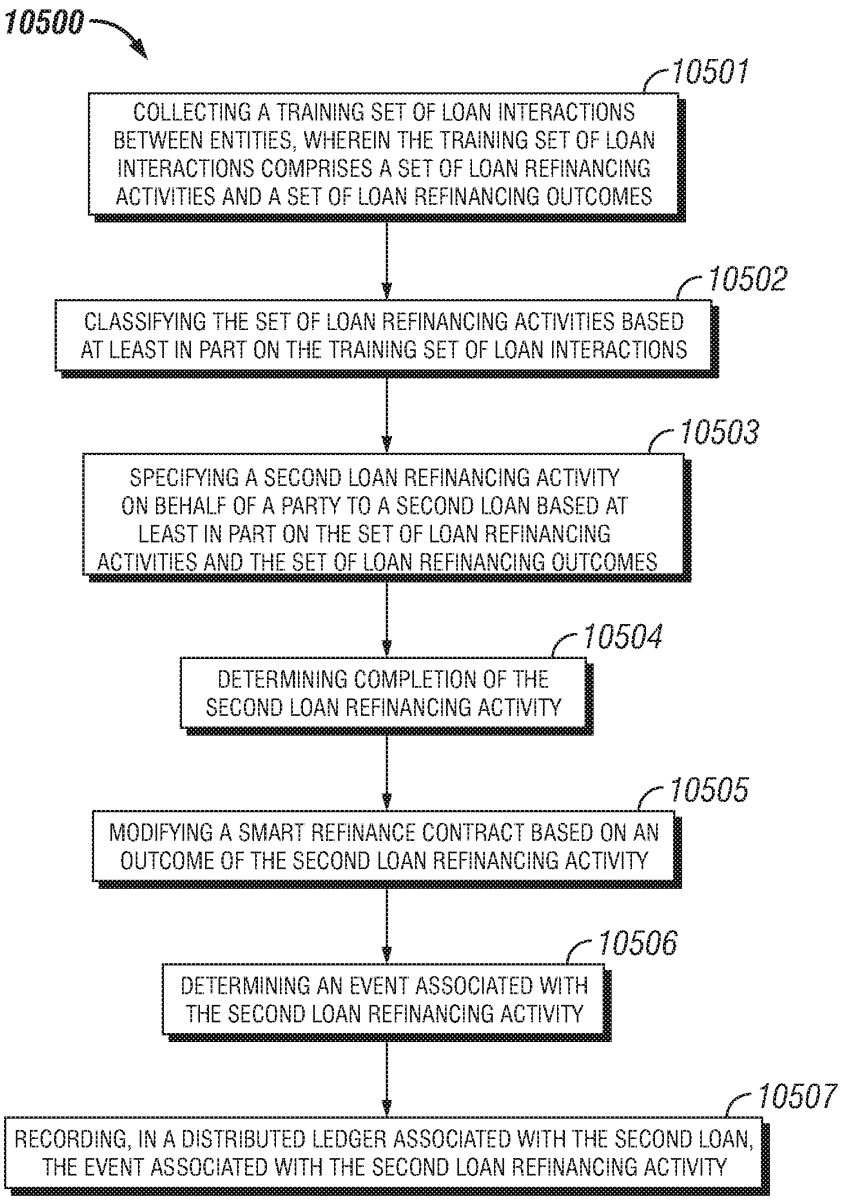
10500
10501
COLLECTING A TRAINING SET OF LOAN INTERACTIONS BETWEEN ENTITIES, WHEREIN THE TRAINING SET OF LOAN INTERACTIONS COMPRISES A SET OF LOAN REFINANCING ACTIVITIES AND A SET OF LOAN REFINANCING OUTCOMES
10502
CLASSIFYING THE SET OF LOAN REFINANCING ACTIVITIES BASED AT LEAST IN PART ON THE TRAINING SET OF LOAN INTERACTIONS
10503
SPECIFYING A SECOND LOAN REFINANCING ACTIVITY ON BEHALF OF A PARTY TO A SECOND LOAN BASED AT LEAST IN PART ON THE SET OF LOAN REFINANCING ACTIVITIES AND THE SET OF LOAN REFINANCING OUTCOMES
10504
DETERMINING COMPLETION OF THE SECOND LOAN REFINANCING ACTIVITY
10505
MODIFYING A SMART REFINANCE CONTRACT BASED ON AN OUTCOME OF THE SECOND LOAN REFINANCING ACTIVITY
10506
DETERMINING AN EVENT ASSOCIATED WITH THE SECOND LOAN REFINANCING ACTIVITY
10507
RECORDING, IN A DISTRIBUTED LEDGER ASSOCIATED WITH THE SECOND LOAN, THE EVENT ASSOCIATED WITH THE SECOND LOAN REFINANCING ACTIVITY

FIG. 105

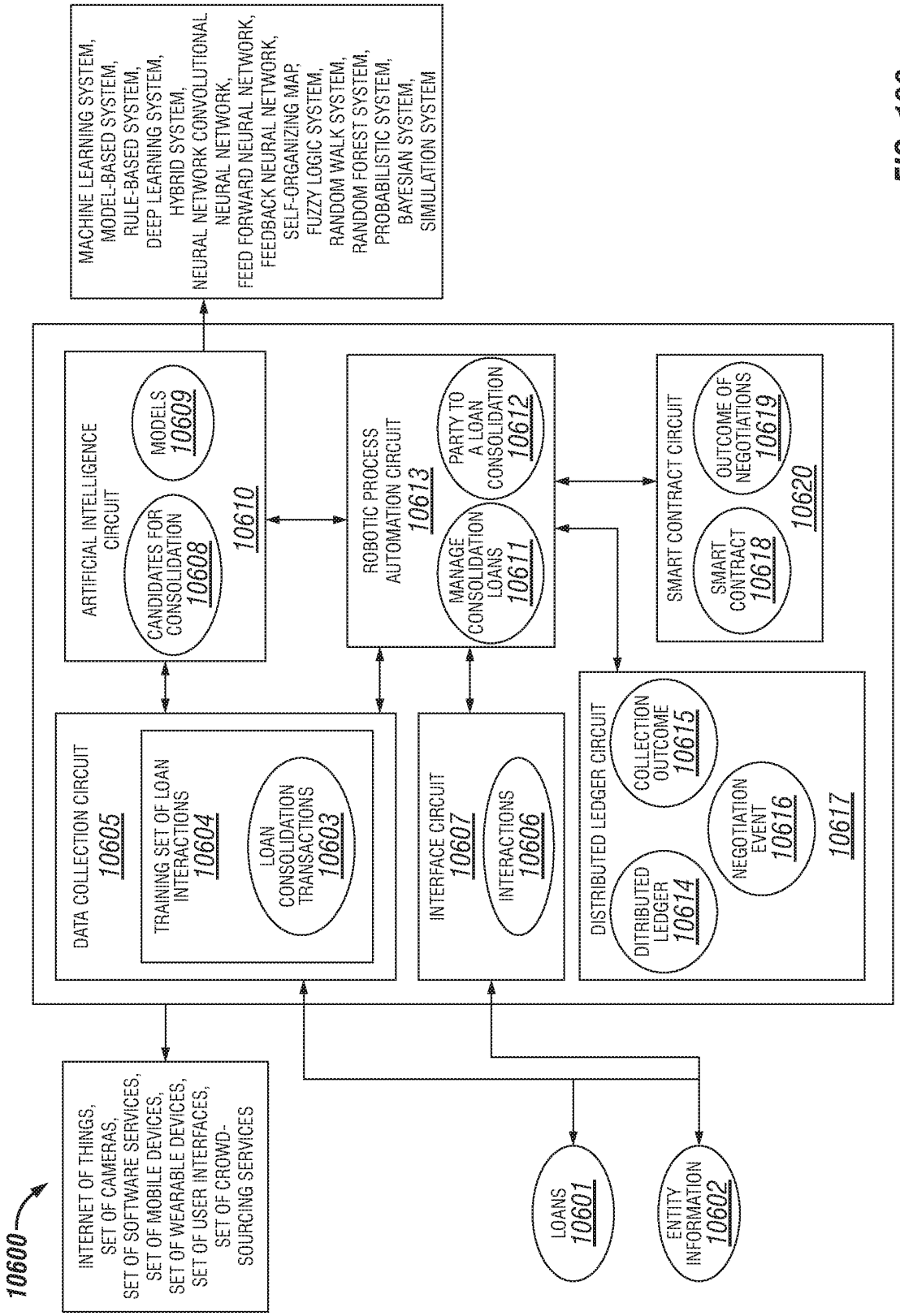
10600
INTERNET OF THINGS, SET OF CAMERAS, SET OF SOFTWARE SERVICES, SET OF MOBILE DEVICES, SET OF WEARABLE DEVICES, SET OF USER INTERFACES, SET OF CROWD-SOURCING SERVICES
LOANS 10601
ENTITY INFORMATION 10602
DATA COLLECTION CIRCUIT 10605
TRAINING SET OF LOAN INTERACTIONS 10604
LOAN CONSOLIDATION TRANSACTIONS 10603
INTERFACE CIRCUIT 10607
INTERACTIONS 10606
ARTIFICIAL INTELLIGENCE CIRCUIT 10610
CANDIDATES FOR CONSOLIDATION 10608
MODELS 10609
MACHINE LEARNING SYSTEM, MODEL-BASED SYSTEM, RULE-BASED SYSTEM, DEEP LEARNING SYSTEM, HYBRID SYSTEM, NEURAL NETWORK CONVOLUTIONAL NEURAL NETWORK, FEED FORWARD NEURAL NETWORK, FEEDBACK NEURAL NETWORK, SELF-ORGANIZING MAP, FUZZY LOGIC SYSTEM, RANDOM WALK SYSTEM, RANDOM FOREST SYSTEM, PROBABILISTIC SYSTEM, BAYESIAN SYSTEM, SIMULATION SYSTEM
ROBOTIC PROCESS AUTOMATION CIRCUIT 10613
MANAGE CONSOLIDATION LOANS 10611
PARTY TO A LOAN CONSOLIDATION 10612
SMART CONTRACT CIRCUIT 10620
SMART CONTRACT 10618
OUTCOME OF NEGOTIATIONS 10619
DISTRIBUTED LEDGER CIRCUIT 10617
DITRIBUTED LEDGER 10614
COLLECTION OUTCOME 10615
NEGOTIATION EVENT 10616

FIG. 106

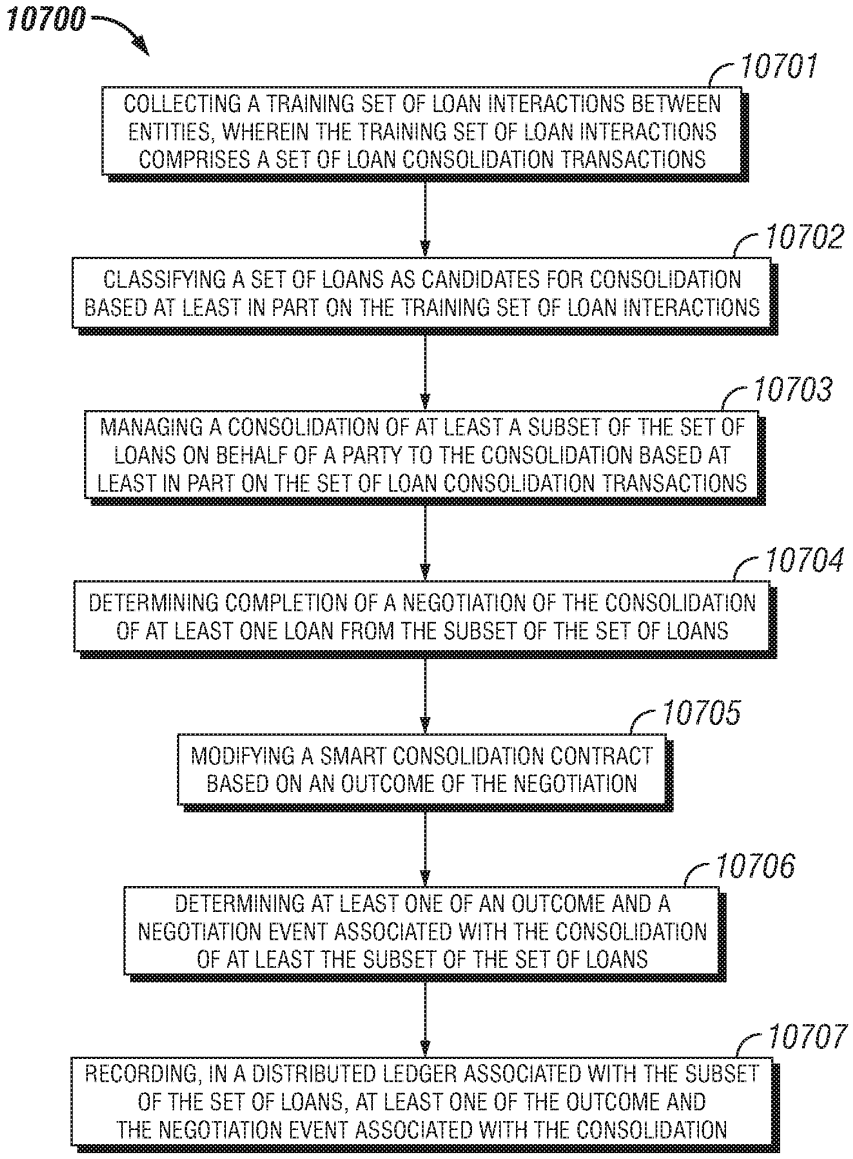
10700
10701
COLLECTING A TRAINING SET OF LOAN INTERACTIONS BETWEEN ENTITIES, WHEREIN THE TRAINING SET OF LOAN INTERACTIONS COMPRISES A SET OF LOAN CONSOLIDATION TRANSACTIONS
10702
CLASSIFYING A SET OF LOANS AS CANDIDATES FOR CONSOLIDATION BASED AT LEAST IN PART ON THE TRAINING SET OF LOAN INTERACTIONS
10703
MANAGING A CONSOLIDATION OF AT LEAST A SUBSET OF THE SET OF LOANS ON BEHALF OF A PARTY TO THE CONSOLIDATION BASED AT LEAST IN PART ON THE SET OF LOAN CONSOLIDATION TRANSACTIONS
10704
DETERMINING COMPLETION OF A NEGOTIATION OF THE CONSOLIDATION OF AT LEAST ONE LOAN FROM THE SUBSET OF THE SET OF LOANS
10705
MODIFYING A SMART CONSOLIDATION CONTRACT BASED ON AN OUTCOME OF THE NEGOTIATION
10706
DETERMINING AT LEAST ONE OF AN OUTCOME AND A NEGOTIATION EVENT ASSOCIATED WITH THE CONSOLIDATION OF AT LEAST THE SUBSET OF THE SET OF LOANS
10707
RECORDING, IN A DISTRIBUTED LEDGER ASSOCIATED WITH THE SUBSET OF THE SET OF LOANS, AT LEAST ONE OF THE OUTCOME AND THE NEGOTIATION EVENT ASSOCIATED WITH THE CONSOLIDATION

FIG. 107

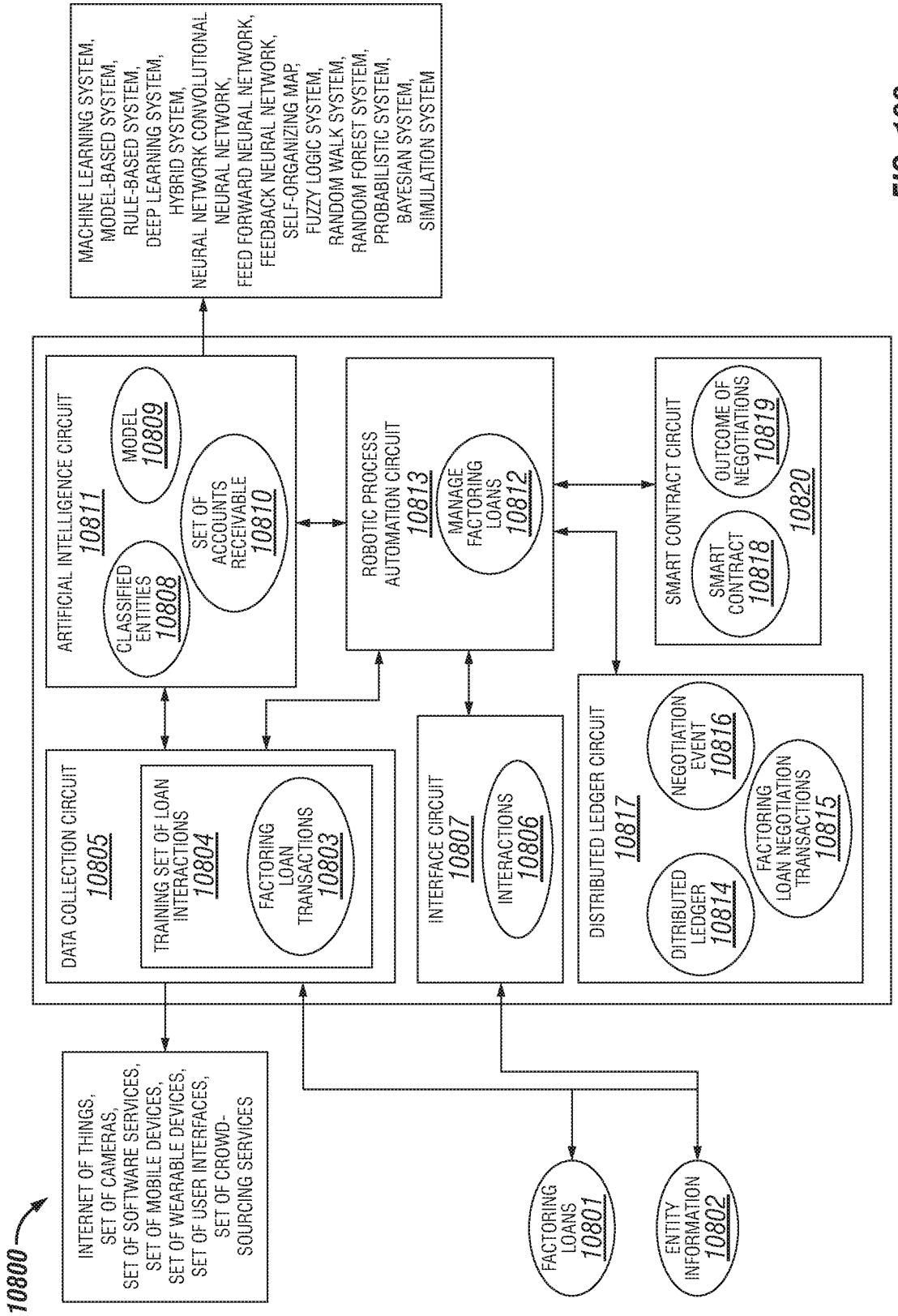
10800
INTERNET OF THINGS, SET OF CAMERAS, SET OF SOFTWARE SERVICES, SET OF MOBILE DEVICES, SET OF WEARABLE DEVICES, SET OF USER INTERFACES, SET OF CROWD-SOURCING SERVICES
FACTORING LOANS 10801
ENTITY INFORMATION 10802
DATA COLLECTION CIRCUIT 10805
TRAINING SET OF LOAN INTERACTIONS 10804
FACTORING LOAN TRANSACTIONS 10803
INTERFACE CIRCUIT 10807
INTERACTIONS 10806
DISTRIBUTED LEDGER CIRCUIT 10817
DITRIBUTED LEDGER 10814
NEGOTIATION EVENT 10816
FACTORING LOAN NEGOTIATION TRANSACTIONS 10815
ARTIFICIAL INTELLIGENCE CIRCUIT 10811
CLASSIFIED ENTITIES 10808
MODEL 10809
SET OF ACCOUNTS RECEIVABLE 10810
ROBOTIC PROCESS AUTOMATION CIRCUIT 10813
MANAGE FACTORING LOANS 10812
SMART CONTRACT CIRCUIT 10820
SMART CONTRACT 10818
OUTCOME OF NEGOTIATIONS 10819
MACHINE LEARNING SYSTEM, MODEL-BASED SYSTEM, RULE-BASED SYSTEM, DEEP LEARNING SYSTEM, HYBRID SYSTEM, NEURAL NETWORK CONVOLUTIONAL NEURAL NETWORK, FEED FORWARD NEURAL NETWORK, FEEDBACK NEURAL NETWORK, SELF-ORGANIZING MAP, FUZZY LOGIC SYSTEM, RANDOM WALK SYSTEM, RANDOM FOREST SYSTEM, PROBABILISTIC SYSTEM, BAYESIAN SYSTEM, SIMULATION SYSTEM

FIG. 108

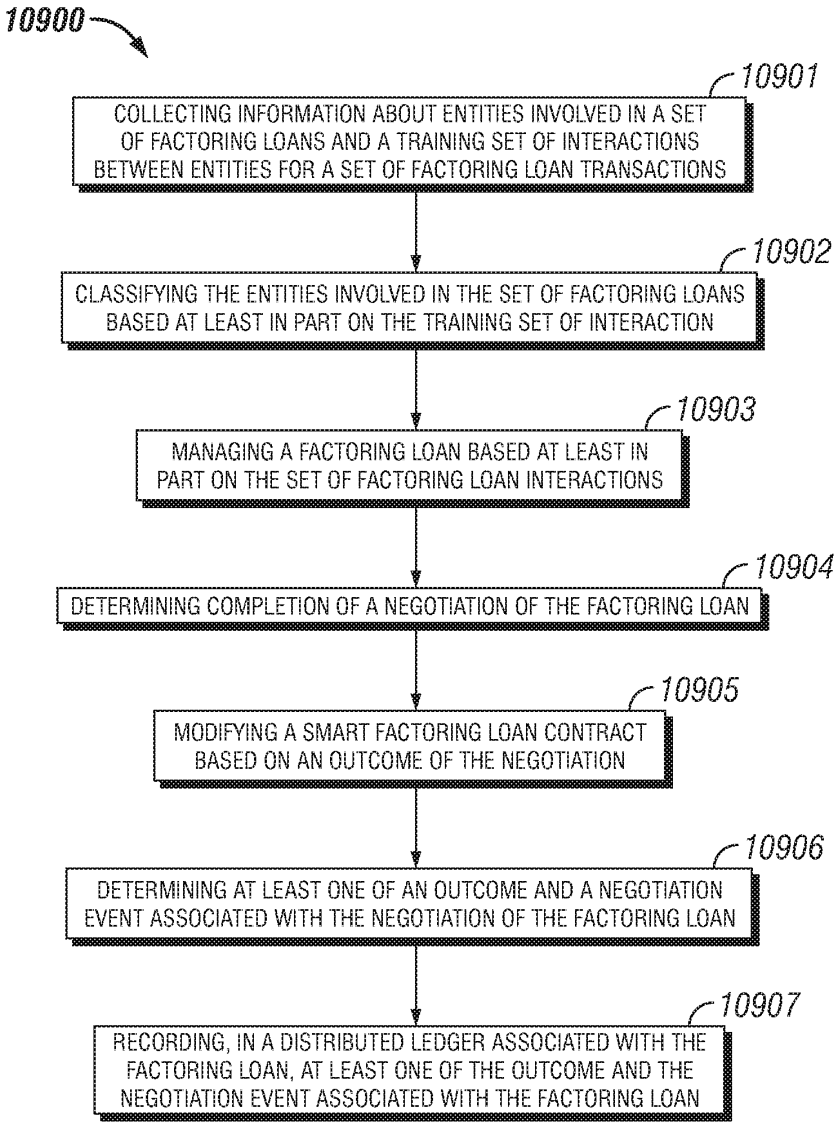
10900
10901
COLLECTING INFORMATION ABOUT ENTITIES INVOLVED IN A SET OF FACTORING LOANS AND A TRAINING SET OF INTERACTIONS BETWEEN ENTITIES FOR A SET OF FACTORING LOAN TRANSACTIONS
10902
CLASSIFYING THE ENTITIES INVOLVED IN THE SET OF FACTORING LOANS BASED AT LEAST IN PART ON THE TRAINING SET OF INTERACTION
10903
MANAGING A FACTORING LOAN BASED AT LEAST IN PART ON THE SET OF FACTORING LOAN INTERACTIONS
10904
DETERMINING COMPLETION OF A NEGOTIATION OF THE FACTORING LOAN
10905
MODIFYING A SMART FACTORING LOAN CONTRACT BASED ON AN OUTCOME OF THE NEGOTIATION
10906
DETERMINING AT LEAST ONE OF AN OUTCOME AND A NEGOTIATION EVENT ASSOCIATED WITH THE NEGOTIATION OF THE FACTORING LOAN
10907
RECORDING, IN A DISTRIBUTED LEDGER ASSOCIATED WITH THE FACTORING LOAN, AT LEAST ONE OF THE OUTCOME AND THE NEGOTIATION EVENT ASSOCIATED WITH THE FACTORING LOAN

FIG. 109

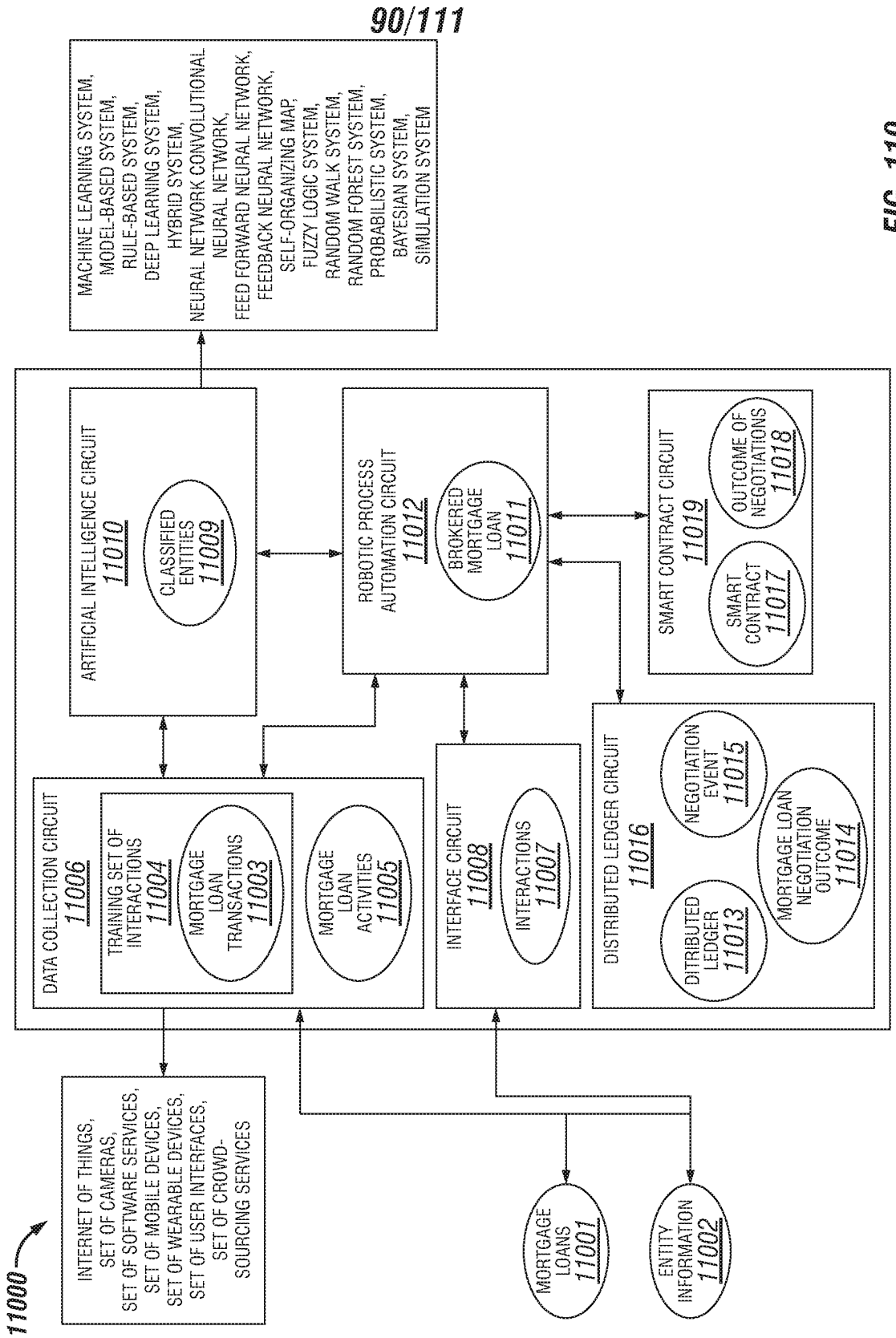
90/111
MACHINE LEARNING SYSTEM, MODEL-BASED SYSTEM, RULE-BASED SYSTEM, DEEP LEARNING SYSTEM, HYBRID SYSTEM, NEURAL NETWORK CONVOLUTIONAL NEURAL NETWORK, FEED FORWARD NEURAL NETWORK, FEEDBACK NEURAL NETWORK, SELF-ORGANIZING MAP, FUZZY LOGIC SYSTEM, RANDOM WALK SYSTEM, RANDOM FOREST SYSTEM, PROBABILISTIC SYSTEM, BAYESIAN SYSTEM, SIMULATION SYSTEM
ARTIFICIAL INTELLIGENCE CIRCUIT 11010
CLASSIFIED ENTITIES 11009
ROBOTIC PROCESS AUTOMATION CIRCUIT 11012
BROKERED MORTGAGE LOAN 11011
SMART CONTRACT CIRCUIT 11019
SMART CONTRACT 11017
OUTCOME OF NEGOTIATIONS 11018
DATA COLLECTION CIRCUIT 11006
TRAINING SET OF INTERACTIONS 11004
MORTGAGE LOAN TRANSACTIONS 11003
MORTGAGE LOAN ACTIVITIES 11005
INTERFACE CIRCUIT 11008
INTERACTIONS 11007
DISTRIBUTED LEDGER CIRCUIT 11016
NEGOTIATION EVENT 11015
DITRIBUTED LEDGER 11013
MORTGAGE LOAN NEGOTIATION OUTCOME 11014
11000
INTERNET OF THINGS, SET OF CAMERAS, SET OF SOFTWARE SERVICES, SET OF MOBILE DEVICES, SET OF WEARABLE DEVICES, SET OF USER INTERFACES, SET OF CROWD-SOURCING SERVICES
MORTGAGE LOANS 11001
ENTITY INFORMATION 11002

FIG. 110

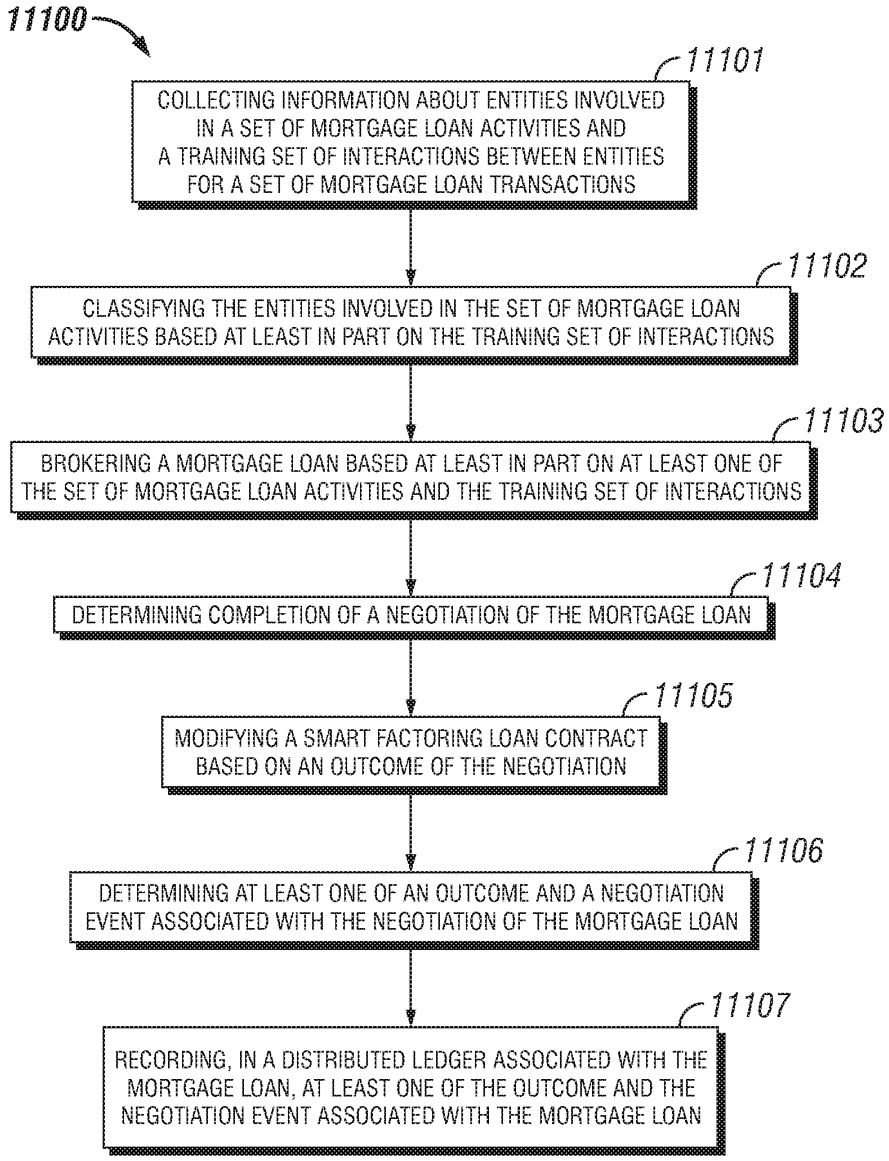
11100
11101
COLLECTING INFORMATION ABOUT ENTITIES INVOLVED IN A SET OF MORTGAGE LOAN ACTIVITIES AND A TRAINING SET OF INTERACTIONS BETWEEN ENTITIES FOR A SET OF MORTGAGE LOAN TRANSACTIONS
11102
CLASSIFYING THE ENTITIES INVOLVED IN THE SET OF MORTGAGE LOAN ACTIVITIES BASED AT LEAST IN PART ON THE TRAINING SET OF INTERACTIONS
11103
BROKERING A MORTGAGE LOAN BASED AT LEAST IN PART ON AT LEAST ONE OF THE SET OF MORTGAGE LOAN ACTIVITIES AND THE TRAINING SET OF INTERACTIONS
11104
DETERMINING COMPLETION OF A NEGOTIATION OF THE MORTGAGE LOAN
11105
MODIFYING A SMART FACTORING LOAN CONTRACT BASED ON AN OUTCOME OF THE NEGOTIATION
11106
DETERMINING AT LEAST ONE OF AN OUTCOME AND A NEGOTIATION EVENT ASSOCIATED WITH THE NEGOTIATION OF THE MORTGAGE LOAN
11107
RECORDING, IN A DISTRIBUTED LEDGER ASSOCIATED WITH THE MORTGAGE LOAN, AT LEAST ONE OF THE OUTCOME AND THE NEGOTIATION EVENT ASSOCIATED WITH THE MORTGAGE LOAN

FIG. 111

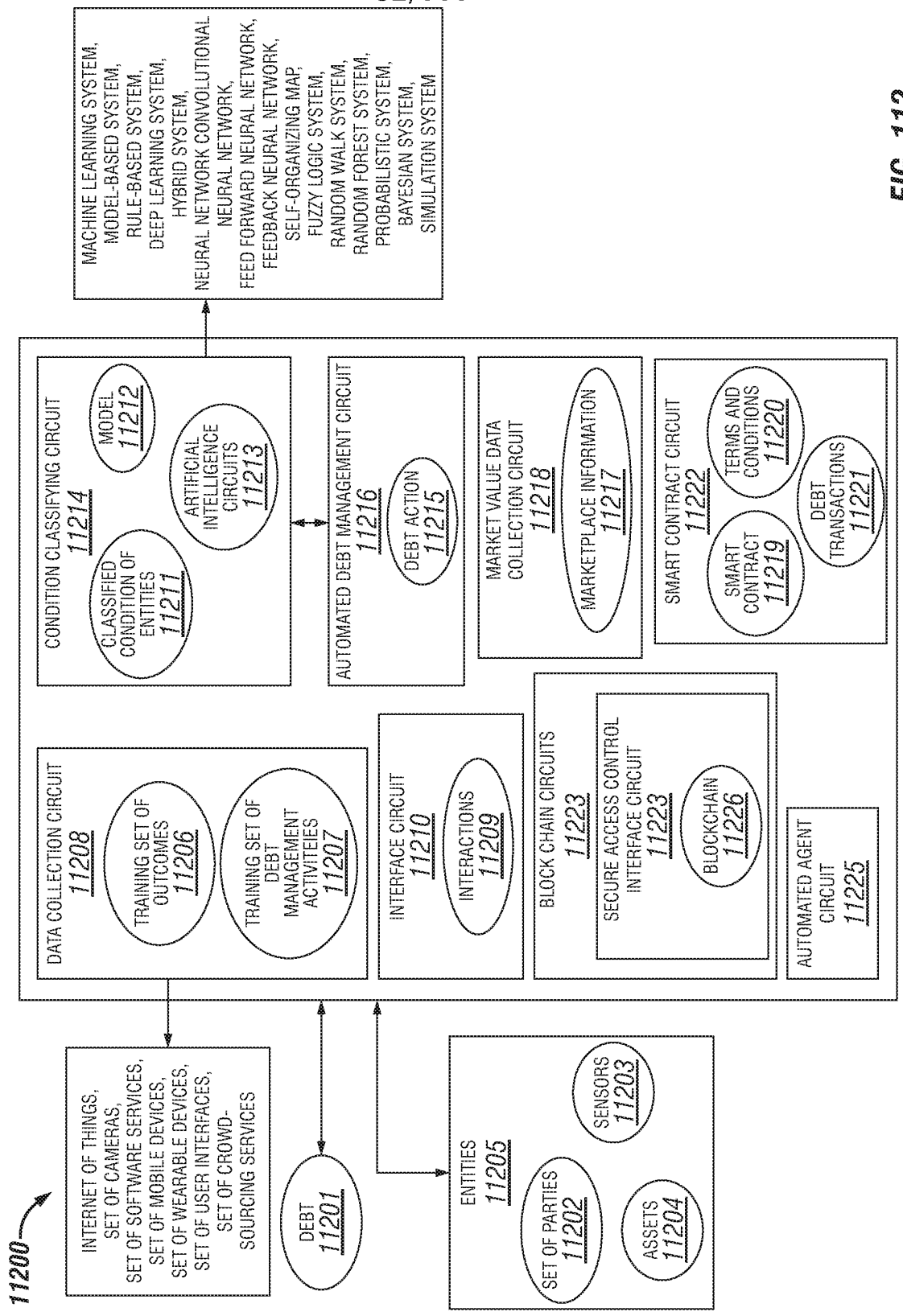
11200
INTERNET OF THINGS, SET OF CAMERAS, SET OF SOFTWARE SERVICES, SET OF MOBILE DEVICES, SET OF WEARABLE DEVICES, SET OF USER INTERFACES, SET OF CROWD-SOURCING SERVICES
DEBT 11201
ENTITIES 11205
SET OF PARTIES 11202
ASSETS 11204
SENSORS 11203
DATA COLLECTION CIRCUIT 11208
TRAINING SET OF OUTCOMES 11206
TRAINING SET OF DEBT MANAGEMENT ACTIVITIES 11207
INTERFACE CIRCUIT 11210
INTERACTIONS 11209
BLOCK CHAIN CIRCUITS 11223
SECURE ACCESS CONTROL INTERFACE CIRCUIT 11223
BLOCKCHAIN 11226
AUTOMATED AGENT CIRCUIT 11225
CONDITION CLASSIFYING CIRCUIT 11214
CLASSIFIED CONDITION OF ENTITIES 11211
ARTIFICIAL INTELLIGENCE CIRCUITS 11213
MODEL 11212
AUTOMATED DEBT MANAGEMENT CIRCUIT 11216
DEBT ACTION 11215
MARKET VALUE DATA COLLECTION CIRCUIT 11218
MARKETPLACE INFORMATION 11217
SMART CONTRACT CIRCUIT 11222
SMART CONTRACT 11219
TERMS AND CONDITIONS 11220
DEBT TRANSACTIONS 11221
MACHINE LEARNING SYSTEM, MODEL-BASED SYSTEM, RULE-BASED SYSTEM, DEEP LEARNING SYSTEM, HYBRID SYSTEM, NEURAL NETWORK CONVOLUTIONAL NEURAL NETWORK, FEED FORWARD NEURAL NETWORK, FEEDBACK NEURAL NETWORK, SELF-ORGANIZING MAP, FUZZY LOGIC SYSTEM, RANDOM WALK SYSTEM, RANDOM FOREST SYSTEM, PROBABILISTIC SYSTEM, BAYESIAN SYSTEM, SIMULATION SYSTEM

FIG. 112

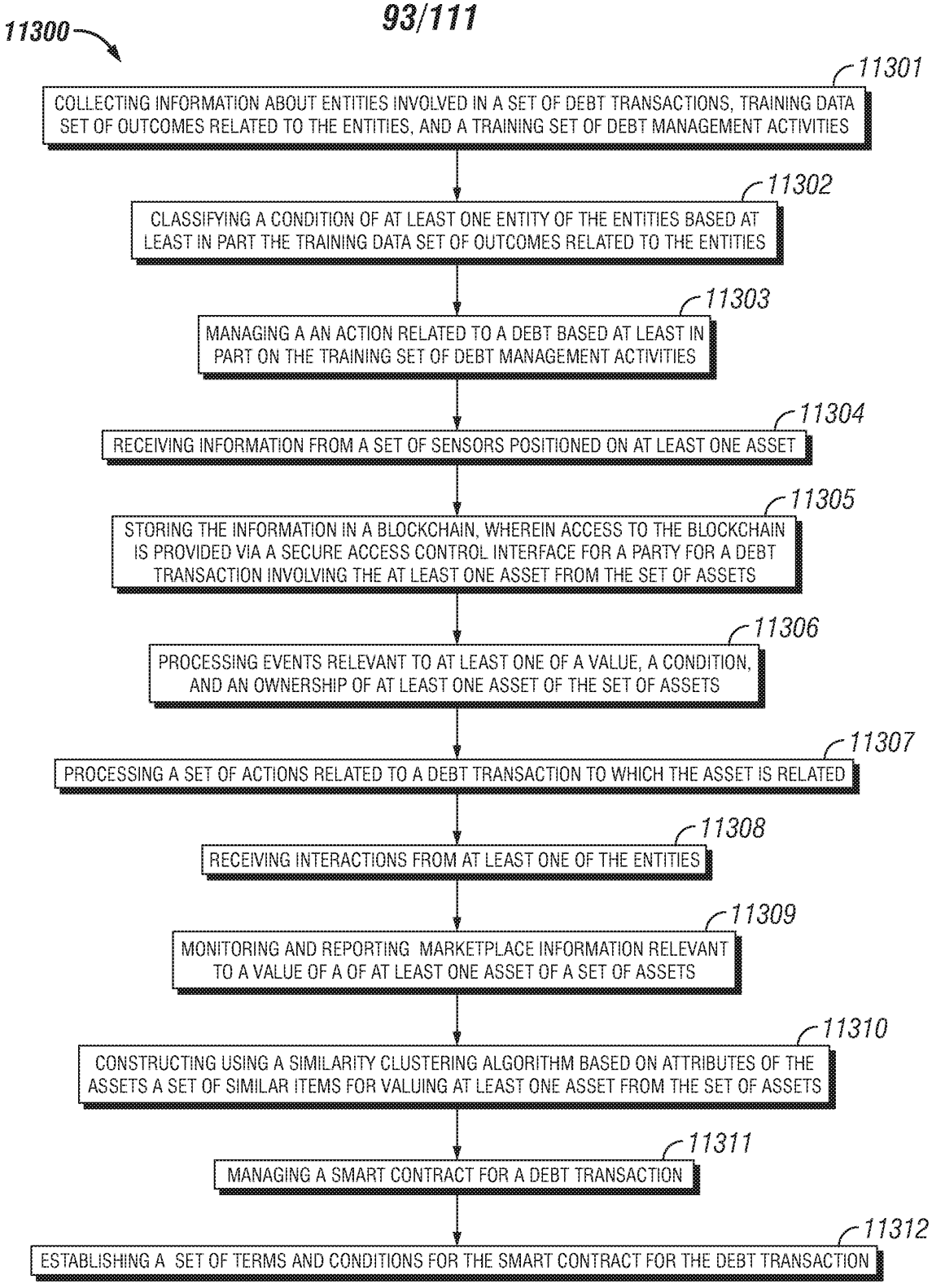
11300
11301
COLLECTING INFORMATION ABOUT ENTITIES INVOLVED IN A SET OF DEBT TRANSACTIONS, TRAINING DATA SET OF OUTCOMES RELATED TO THE ENTITIES, AND A TRAINING SET OF DEBT MANAGEMENT ACTIVITIES
11302
CLASSIFYING A CONDITION OF AT LEAST ONE ENTITY OF THE ENTITIES BASED AT LEAST IN PART THE TRAINING DATA SET OF OUTCOMES RELATED TO THE ENTITIES
11303
MANAGING A AN ACTION RELATED TO A DEBT BASED AT LEAST IN PART ON THE TRAINING SET OF DEBT MANAGEMENT ACTIVITIES
11304
RECEIVING INFORMATION FROM A SET OF SENSORS POSITIONED ON AT LEAST ONE ASSET
11305
STORING THE INFORMATION IN A BLOCKCHAIN, WHEREIN ACCESS TO THE BLOCKCHAIN IS PROVIDED VIA A SECURE ACCESS CONTROL INTERFACE FOR A PARTY FOR A DEBT TRANSACTION INVOLVING THE AT LEAST ONE ASSET FROM THE SET OF ASSETS
11306
PROCESSING EVENTS RELEVANT TO AT LEAST ONE OF A VALUE, A CONDITION, AND AN OWNERSHIP OF AT LEAST ONE ASSET OF THE SET OF ASSETS
11307
PROCESSING A SET OF ACTIONS RELATED TO A DEBT TRANSACTION TO WHICH THE ASSET IS RELATED
11308
RECEIVING INTERACTIONS FROM AT LEAST ONE OF THE ENTITIES
11309
MONITORING AND REPORTING MARKETPLACE INFORMATION RELEVANT TO A VALUE OF A OF AT LEAST ONE ASSET OF A SET OF ASSETS
11310
CONSTRUCTING USING A SIMILARITY CLUSTERING ALGORITHM BASED ON ATTRIBUTES OF THE ASSETS A SET OF SIMILAR ITEMS FOR VALUING AT LEAST ONE ASSET FROM THE SET OF ASSETS
11311
MANAGING A SMART CONTRACT FOR A DEBT TRANSACTION
11312
ESTABLISHING A SET OF TERMS AND CONDITIONS FOR THE SMART CONTRACT FOR THE DEBT TRANSACTION

FIG. 113

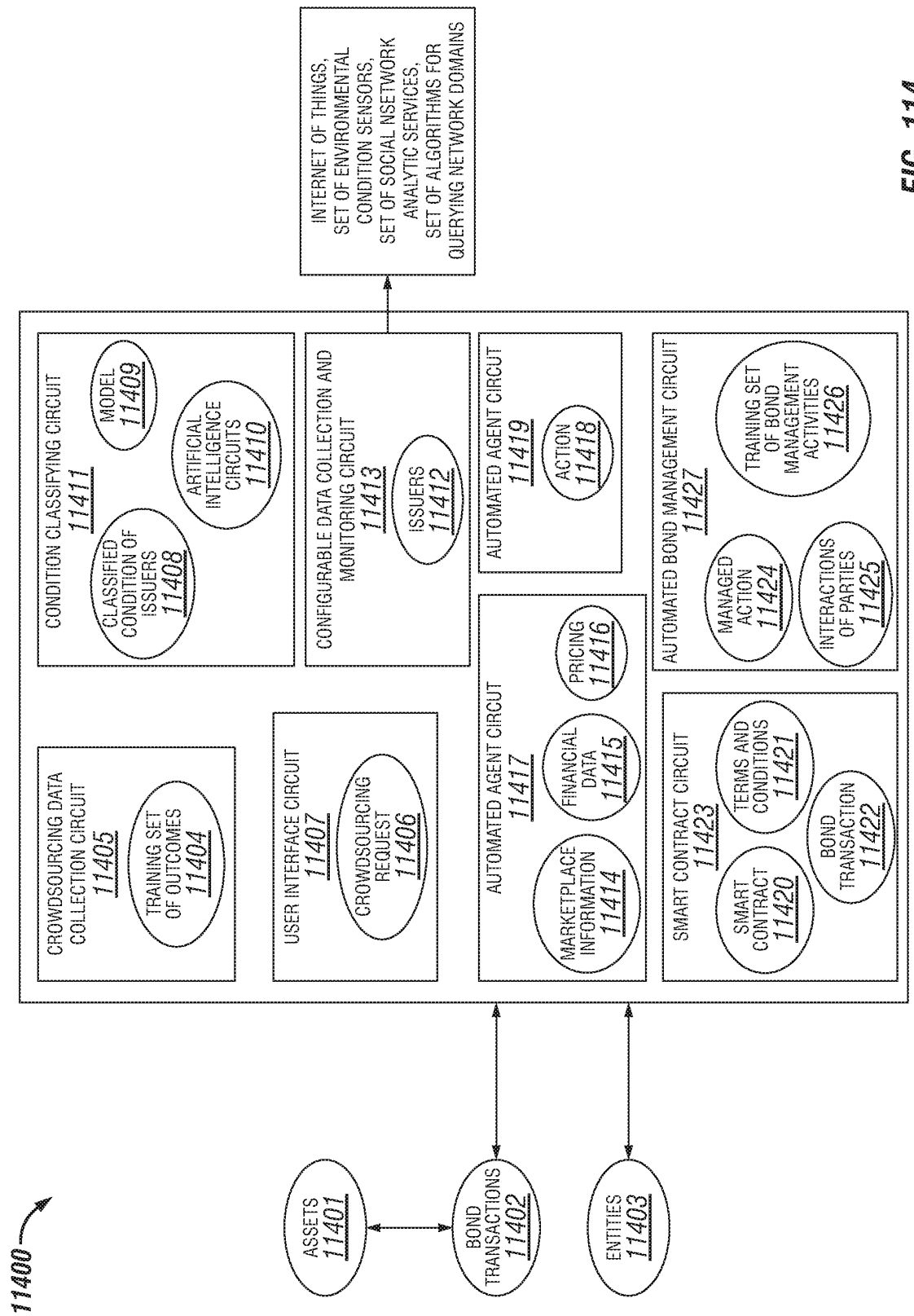
11400
ASSETS 11401
BOND TRANSACTIONS 11402
ENTITIES 11403
CROWDSOURCING DATA COLLECTION CIRCUIT 11405
TRAINING SET OF OUTCOMES 11404
USER INTERFACE CIRCUIT 11407
CROWDSOURCING REQUEST 11406
CONDITION CLASSIFYING CIRCUIT 11411
CLASSIFIED CONDITION OF ISSUERS 11408
MODEL 11409
ARTIFICIAL INTELLIGENCE CIRCUITS 11410
CONFIGURABLE DATA COLLECTION AND MONITORING CIRCUIT 11413
ISSUERS 11412
INTERNET OF THINGS, SET OF ENVIRONMENTAL CONDITION SENSORS, SET OF SOCIAL NSETWORK ANALYTIC SERVICES, SET OF ALGORITHMS FOR QUERYING NETWORK DOMAINS
AUTOMATED AGENT CIRCUIT 11419
ACTION 11418
AUTOMATED AGENT CIRCUIT 11417
MARKETPLACE INFORMATION 11414
FINANCIAL DATA 11415
PRICING 11416
AUTOMATED BOND MANAGEMENT CIRCUIT 11427
TRAINING SET OF BOND MANAGEMENT ACTIVITIES 11426
MANAGED ACTION 11424
INTERACTIONS OF PARTIES 11425
SMART CONTRACT CIRCUIT 11423
SMART CONTRACT 11420
TERMS AND CONDITIONS 11421
BOND TRANSACTION 11422

FIG. 114

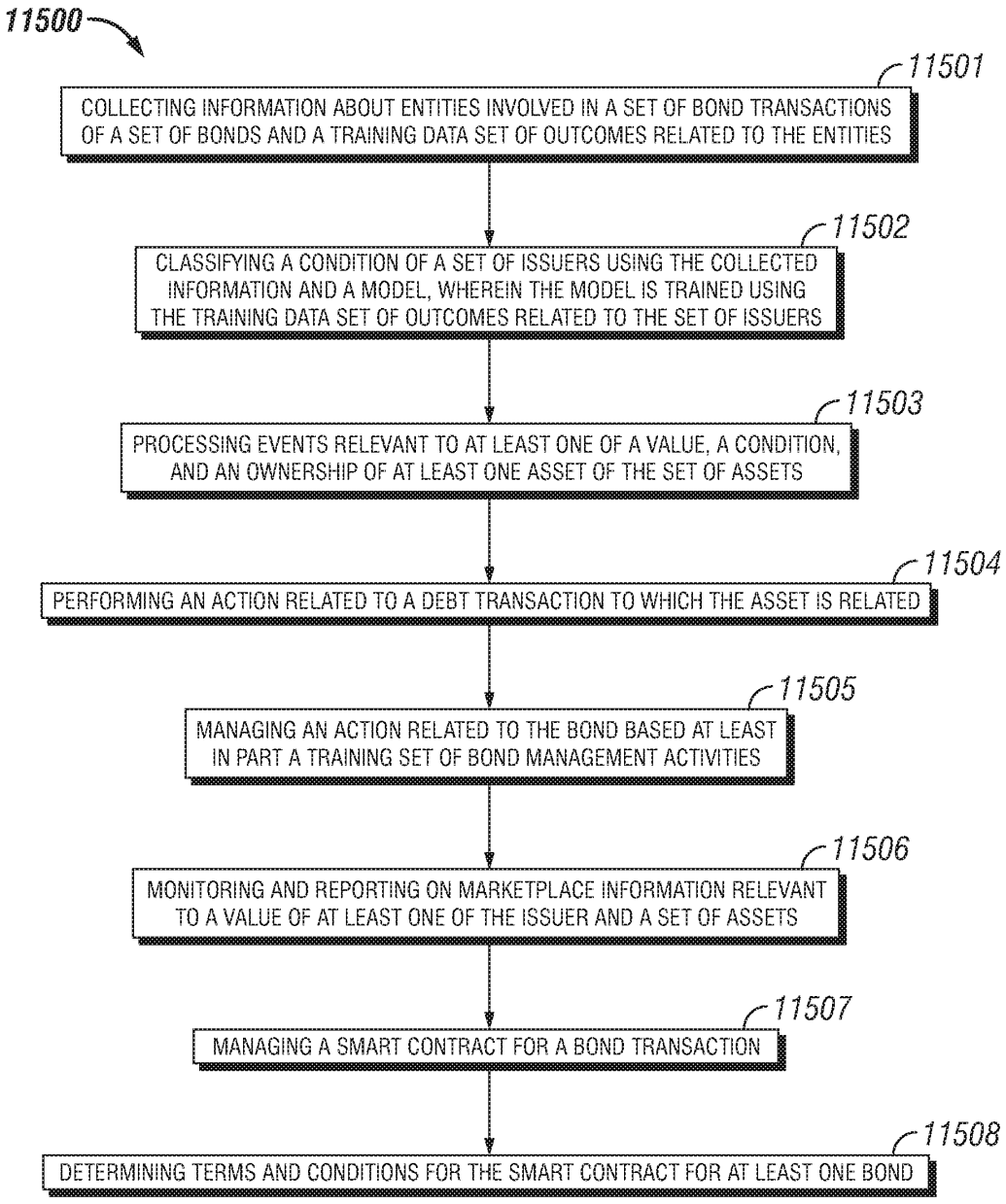
11500
11501
COLLECTING INFORMATION ABOUT ENTITIES INVOLVED IN A SET OF BOND TRANSACTIONS OF A SET OF BONDS AND A TRAINING DATA SET OF OUTCOMES RELATED TO THE ENTITIES
11502
CLASSIFYING A CONDITION OF A SET OF ISSUERS USING THE COLLECTED INFORMATION AND A MODEL, WHEREIN THE MODEL IS TRAINED USING THE TRAINING DATA SET OF OUTCOMES RELATED TO THE SET OF ISSUERS
11503
PROCESSING EVENTS RELEVANT TO AT LEAST ONE OF A VALUE, A CONDITION, AND AN OWNERSHIP OF AT LEAST ONE ASSET OF THE SET OF ASSETS
11504
PERFORMING AN ACTION RELATED TO A DEBT TRANSACTION TO WHICH THE ASSET IS RELATED
11505
MANAGING AN ACTION RELATED TO THE BOND BASED AT LEAST IN PART A TRAINING SET OF BOND MANAGEMENT ACTIVITIES
11506
MONITORING AND REPORTING ON MARKETPLACE INFORMATION RELEVANT TO A VALUE OF AT LEAST ONE OF THE ISSUER AND A SET OF ASSETS
11507
MANAGING A SMART CONTRACT FOR A BOND TRANSACTION
11508
DETERMINING TERMS AND CONDITIONS FOR THE SMART CONTRACT FOR AT LEAST ONE BOND

FIG. 115

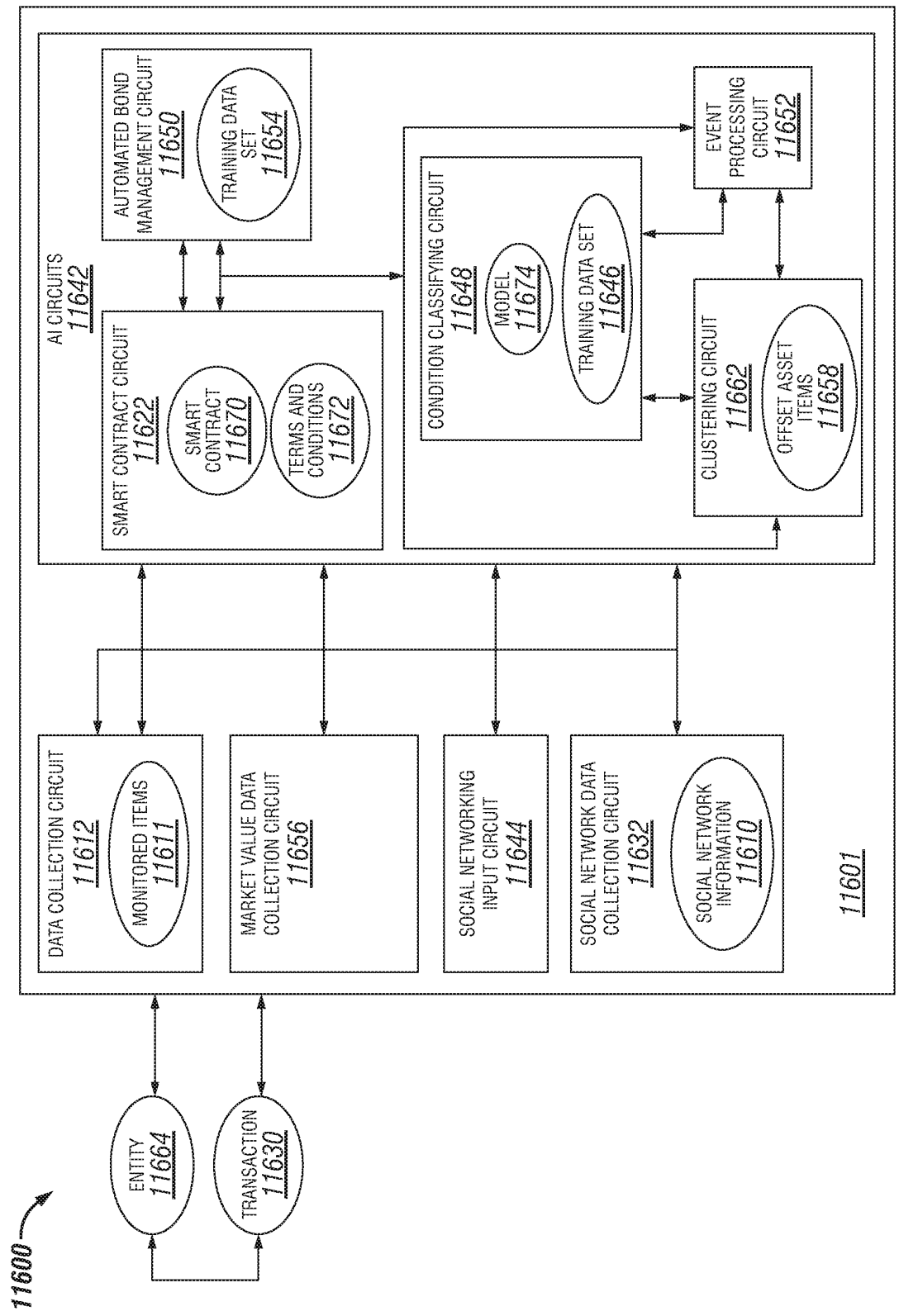
11600
ENTITY 11664
TRANSACTION 11630
11601
AI CIRCUITS 11642
AUTOMATED BOND MANAGEMENT CIRCUIT 11650
TRAINING DATA SET 11654
SMART CONTRACT CIRCUIT 11622
SMART CONTRACT 11670
TERMS AND CONDITIONS 11672
CONDITION CLASSIFYING CIRCUIT 11648
MODEL 11674
TRAINING DATA SET 11646
EVENT PROCESSING CIRCUIT 11652
CLUSTERING CIRCUIT 11662
OFFSET ASSET ITEMS 11658
DATA COLLECTION CIRCUIT 11612
MONITORED ITEMS 11611
MARKET VALUE DATA COLLECTION CIRCUIT 11656
SOCIAL NETWORKING INPUT CIRCUIT 11644
SOCIAL NETWORK DATA COLLECTION CIRCUIT 11632
SOCIAL NETWORK INFORMATION 11610

FIG. 116

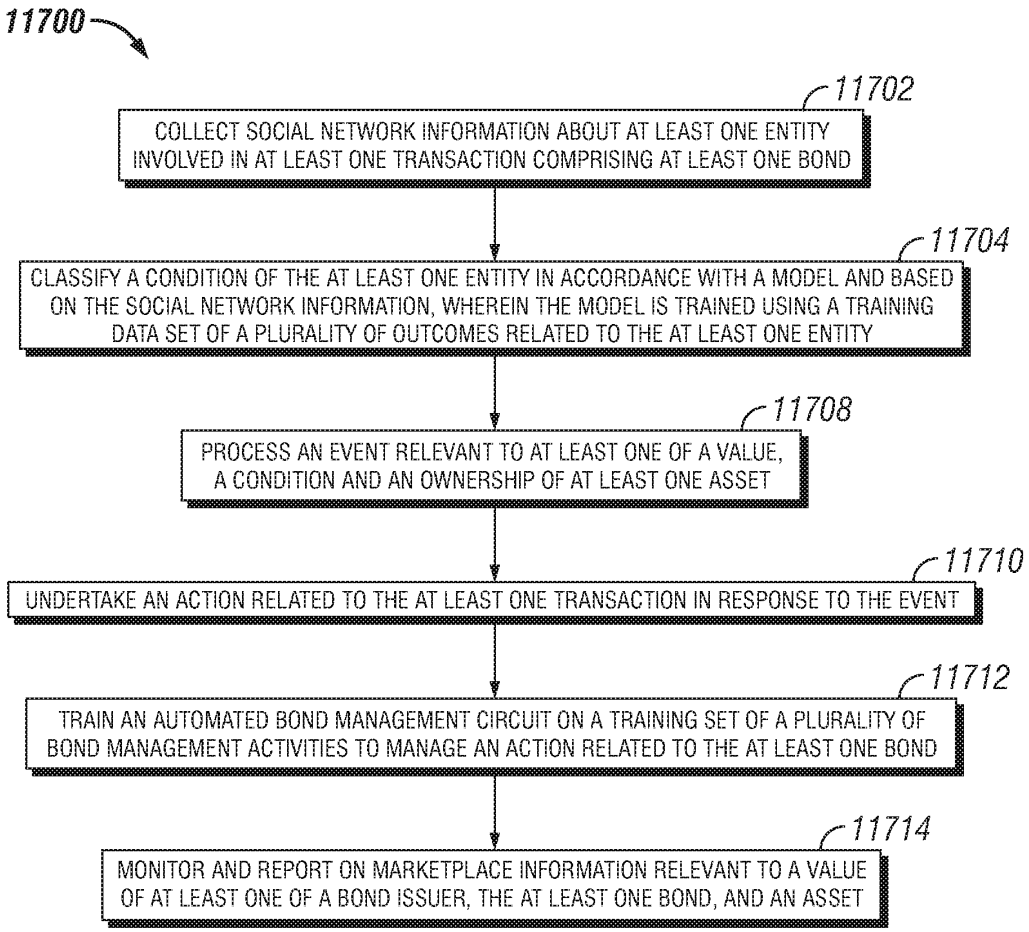
11700
11702
COLLECT SOCIAL NETWORK INFORMATION ABOUT AT LEAST ONE ENTITY INVOLVED IN AT LEAST ONE TRANSACTION COMPRISING AT LEAST ONE BOND
11704
CLASSIFY A CONDITION OF THE AT LEAST ONE ENTITY IN ACCORDANCE WITH A MODEL AND BASED ON THE SOCIAL NETWORK INFORMATION, WHEREIN THE MODEL IS TRAINED USING A TRAINING DATA SET OF A PLURALITY OF OUTCOMES RELATED TO THE AT LEAST ONE ENTITY
11708
PROCESS AN EVENT RELEVANT TO AT LEAST ONE OF A VALUE, A CONDITION AND AN OWNERSHIP OF AT LEAST ONE ASSET
11710
UNDERTAKE AN ACTION RELATED TO THE AT LEAST ONE TRANSACTION IN RESPONSE TO THE EVENT
11712
TRAIN AN AUTOMATED BOND MANAGEMENT CIRCUIT ON A TRAINING SET OF A PLURALITY OF BOND MANAGEMENT ACTIVITIES TO MANAGE AN ACTION RELATED TO THE AT LEAST ONE BOND
11714
MONITOR AND REPORT ON MARKETPLACE INFORMATION RELEVANT TO A VALUE OF AT LEAST ONE OF A BOND ISSUER, THE AT LEAST ONE BOND, AND AN ASSET

FIG. 117

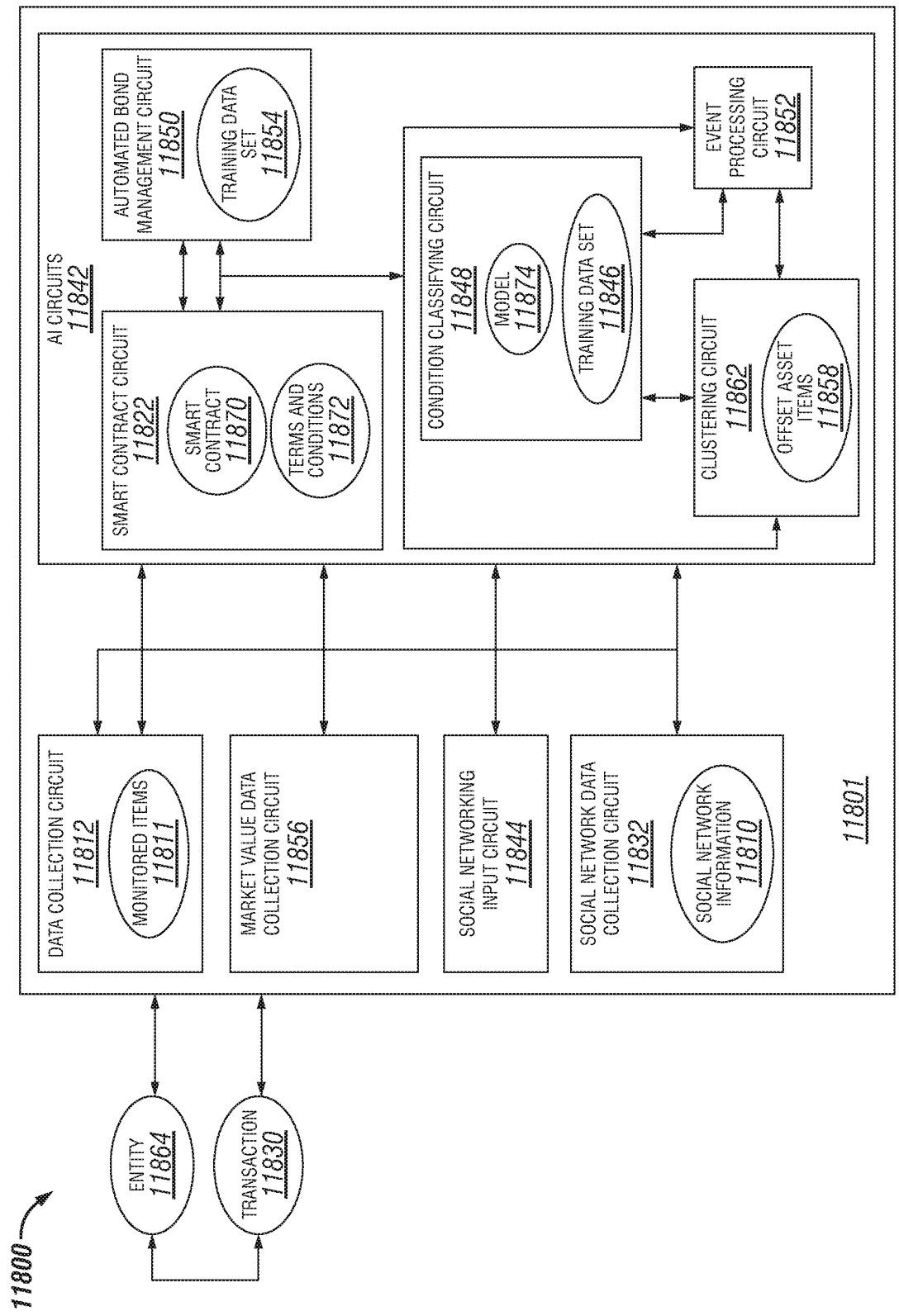
11800
ENTITY 11864
TRANSACTION 11830
11801
DATA COLLECTION CIRCUIT 11812
MONITORED ITEMS 11811
MARKET VALUE DATA COLLECTION CIRCUIT 11856
SOCIAL NETWORKING INPUT CIRCUIT 11844
SOCIAL NETWORK DATA COLLECTION CIRCUIT 11832
SOCIAL NETWORK INFORMATION 11810
AI CIRCUITS 11842
AUTOMATED BOND MANAGEMENT CIRCUIT 11850
TRAINING DATA SET 11854
SMART CONTRACT CIRCUIT 11822
SMART CONTRACT 11870
TERMS AND CONDITIONS 11872
CONDITION CLASSIFYING CIRCUIT 11848
MODEL 11874
TRAINING DATA SET 11846
EVENT PROCESSING CIRCUIT 11852
CLUSTERING CIRCUIT 11862
OFFSET ASSET ITEMS 11858

FIG. 118

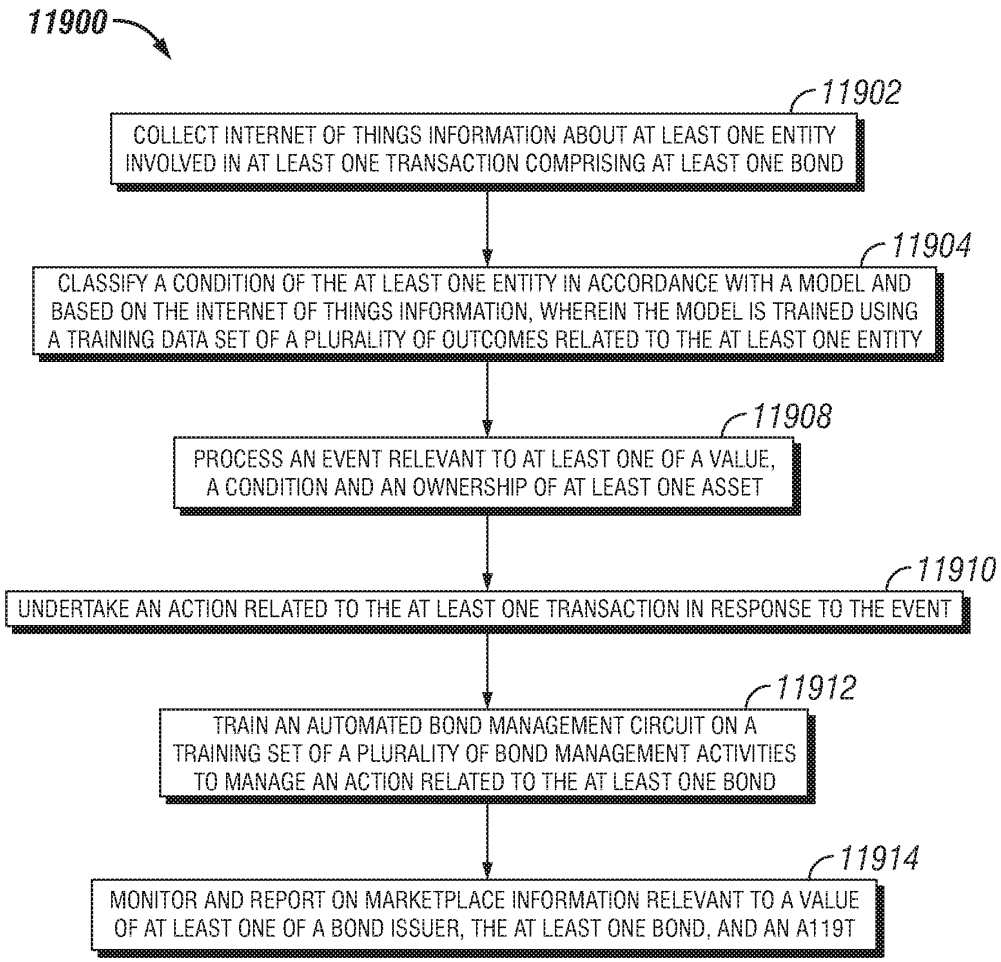
11900
11902
COLLECT INTERNET OF THINGS INFORMATION ABOUT AT LEAST ONE ENTITY INVOLVED IN AT LEAST ONE TRANSACTION COMPRISING AT LEAST ONE BOND
11904
CLASSIFY A CONDITION OF THE AT LEAST ONE ENTITY IN ACCORDANCE WITH A MODEL AND BASED ON THE INTERNET OF THINGS INFORMATION, WHEREIN THE MODEL IS TRAINED USING A TRAINING DATA SET OF A PLURALITY OF OUTCOMES RELATED TO THE AT LEAST ONE ENTITY
11908
PROCESS AN EVENT RELEVANT TO AT LEAST ONE OF A VALUE, A CONDITION AND AN OWNERSHIP OF AT LEAST ONE ASSET
11910
UNDERTAKE AN ACTION RELATED TO THE AT LEAST ONE TRANSACTION IN RESPONSE TO THE EVENT
11912
TRAIN AN AUTOMATED BOND MANAGEMENT CIRCUIT ON A TRAINING SET OF A PLURALITY OF BOND MANAGEMENT ACTIVITIES TO MANAGE AN ACTION RELATED TO THE AT LEAST ONE BOND
11914
MONITOR AND REPORT ON MARKETPLACE INFORMATION RELEVANT TO A VALUE OF AT LEAST ONE OF A BOND ISSUER, THE AT LEAST ONE BOND, AND AN A119T

FIG. 119

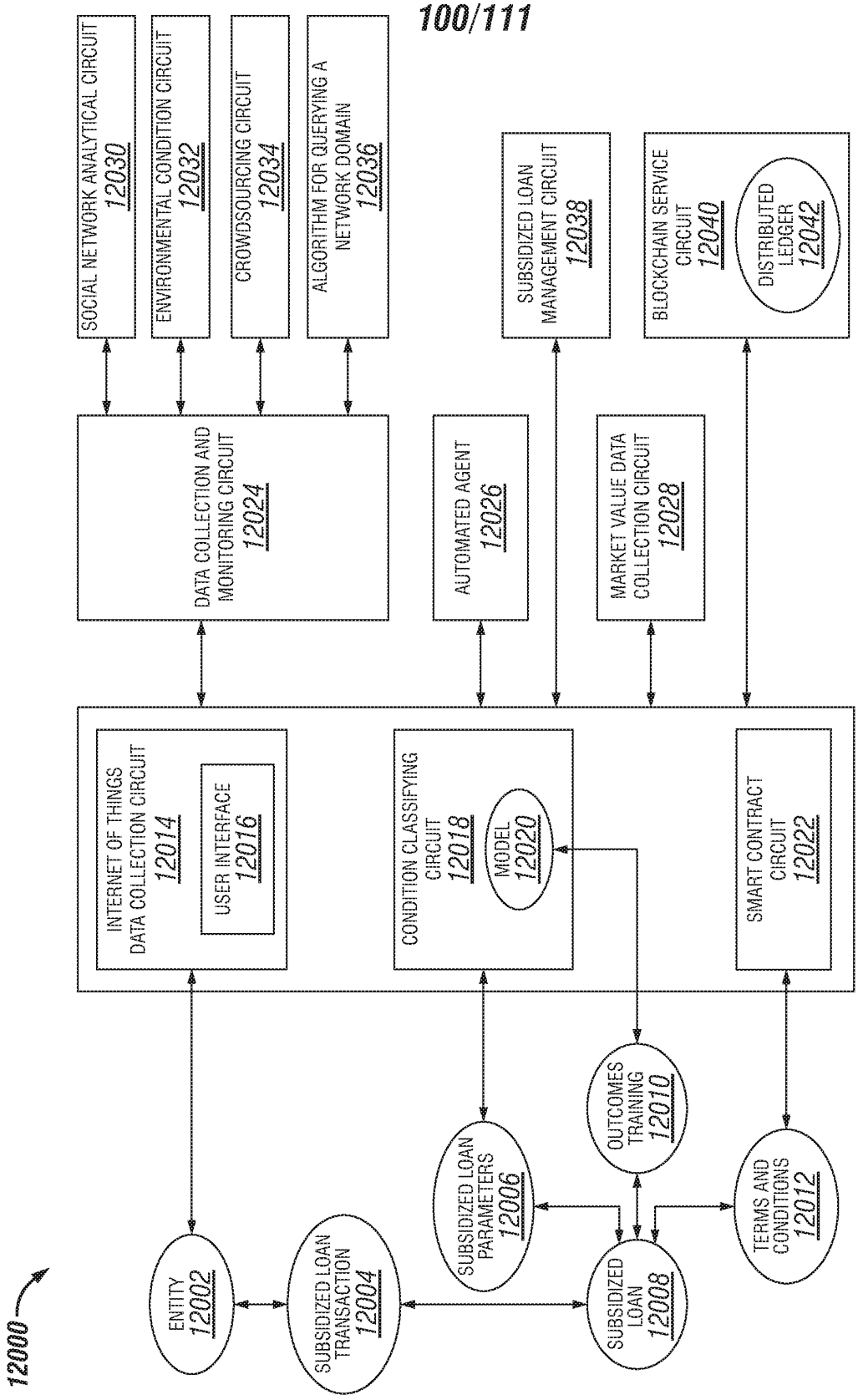
100/111
12000
SOCIAL NETWORK ANALYTICAL CIRCUIT 12030
ENVIRONMENTAL CONDITION CIRCUIT 12032
CROWDSOURCING CIRCUIT 12034
ALGORITHM FOR QUERYING A NETWORK DOMAIN 12036
SUBSIDIZED LOAN MANAGEMENT CIRCUIT 12038
BLOCKCHAIN SERVICE CIRCUIT 12040
DISTRIBUTED LEDGER 12042
DATA COLLECTION AND MONITORING CIRCUIT 12024
AUTOMATED AGENT 12026
MARKET VALUE DATA COLLECTION CIRCUIT 12028
INTERNET OF THINGS DATA COLLECTION CIRCUIT 12014
USER INTERFACE 12016
CONDITION CLASSIFYING CIRCUIT 12018
MODEL 12020
SMART CONTRACT CIRCUIT 12022
ENTITY 12002
SUBSIDIZED LOAN TRANSACTION 12004
SUBSIDIZED LOAN PARAMETERS 12006
OUTCOMES TRAINING 12010
SUBSIDIZED LOAN 12008
TERMS AND CONDITIONS 12012

FIG. 120

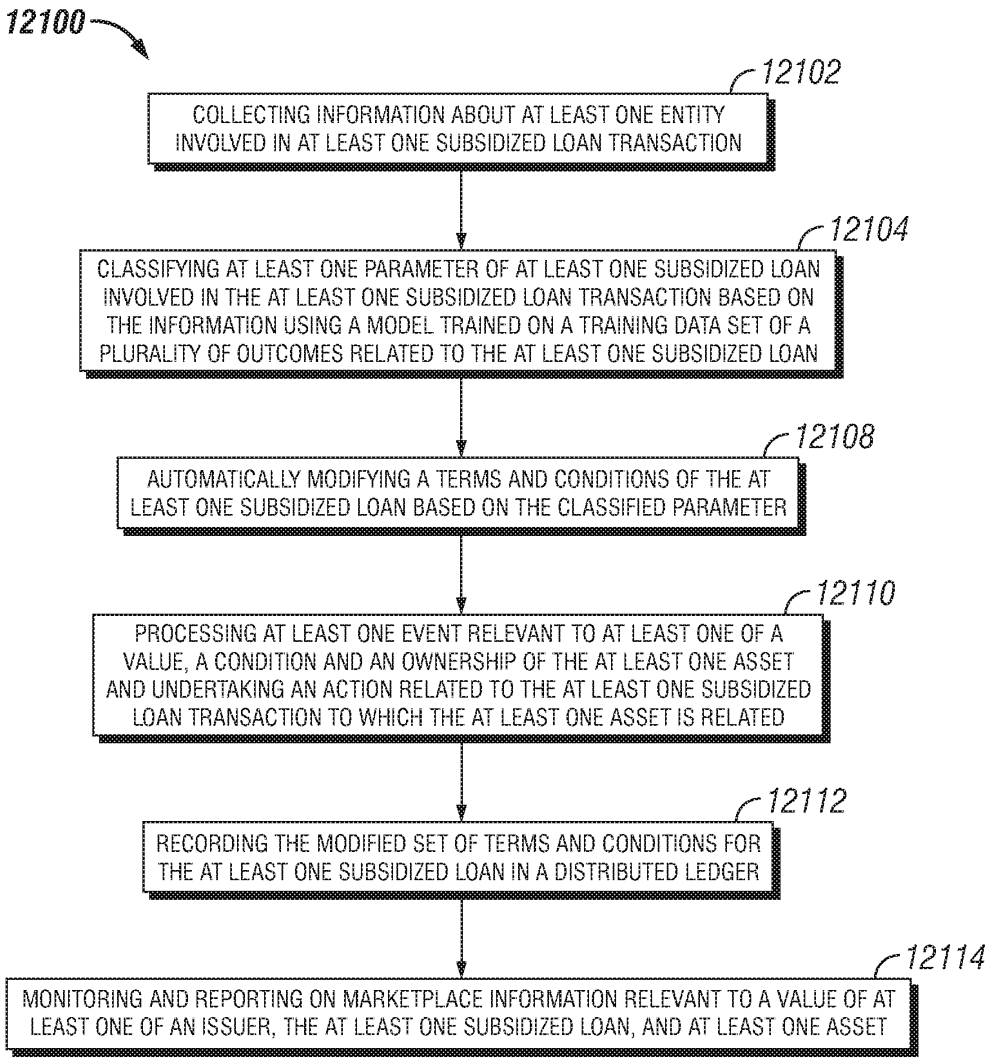
12100
12102
COLLECTING INFORMATION ABOUT AT LEAST ONE ENTITY INVOLVED IN AT LEAST ONE SUBSIDIZED LOAN TRANSACTION
12104
CLASSIFYING AT LEAST ONE PARAMETER OF AT LEAST ONE SUBSIDIZED LOAN INVOLVED IN THE AT LEAST ONE SUBSIDIZED LOAN TRANSACTION BASED ON THE INFORMATION USING A MODEL TRAINED ON A TRAINING DATA SET OF A PLURALITY OF OUTCOMES RELATED TO THE AT LEAST ONE SUBSIDIZED LOAN
12108
AUTOMATICALLY MODIFYING A TERMS AND CONDITIONS OF THE AT LEAST ONE SUBSIDIZED LOAN BASED ON THE CLASSIFIED PARAMETER
12110
PROCESSING AT LEAST ONE EVENT RELEVANT TO AT LEAST ONE OF A VALUE, A CONDITION AND AN OWNERSHIP OF THE AT LEAST ONE ASSET AND UNDERTAKING AN ACTION RELATED TO THE AT LEAST ONE SUBSIDIZED LOAN TRANSACTION TO WHICH THE AT LEAST ONE ASSET IS RELATED
12112
RECORDING THE MODIFIED SET OF TERMS AND CONDITIONS FOR THE AT LEAST ONE SUBSIDIZED LOAN IN A DISTRIBUTED LEDGER
12114
MONITORING AND REPORTING ON MARKETPLACE INFORMATION RELEVANT TO A VALUE OF AT LEAST ONE OF AN ISSUER, THE AT LEAST ONE SUBSIDIZED LOAN, AND AT LEAST ONE ASSET

FIG. 121

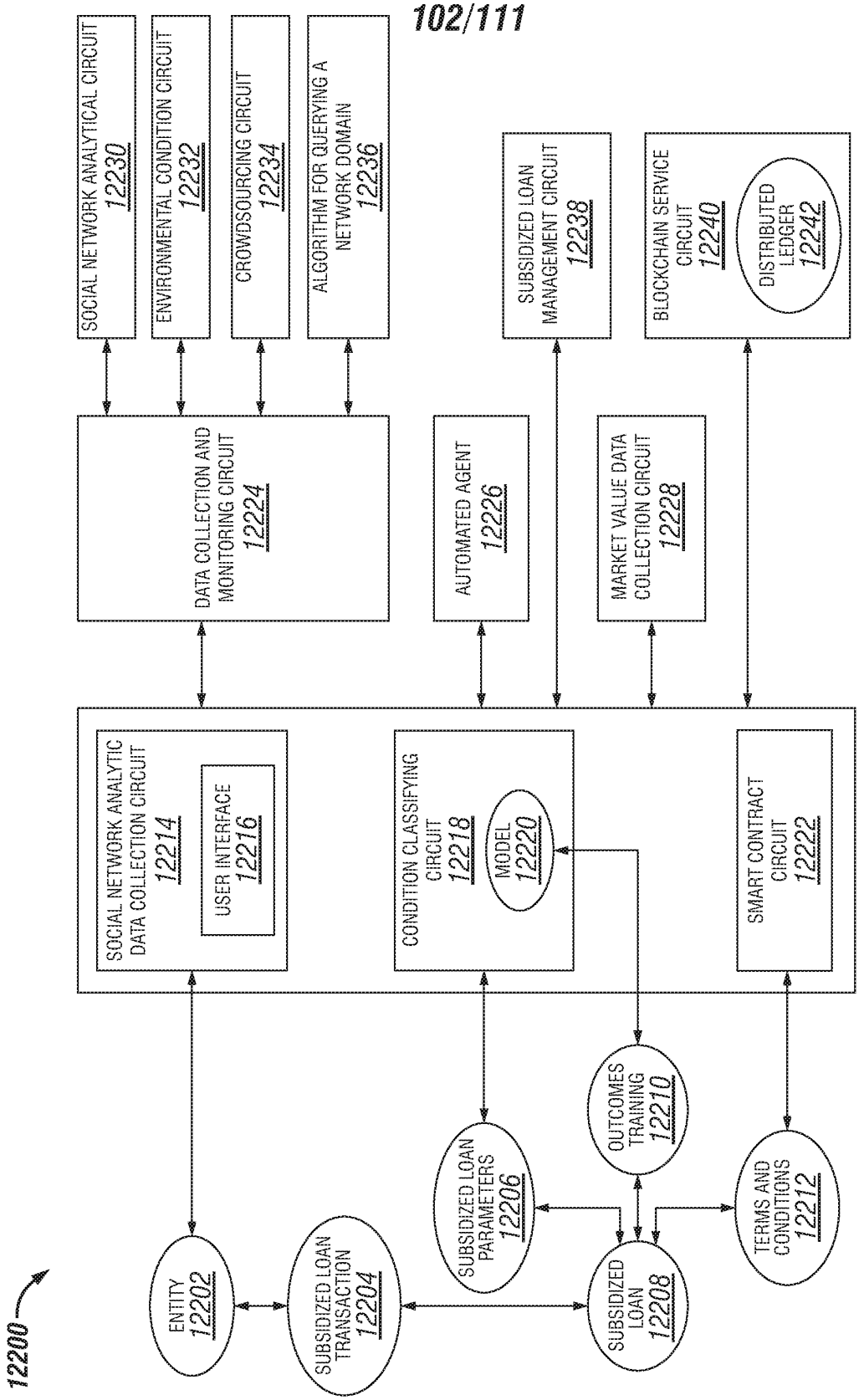
102/111
12200
SOCIAL NETWORK ANALYTICAL CIRCUIT 12230
ENVIRONMENTAL CONDITION CIRCUIT 12232
CROWDSOURCING CIRCUIT 12234
ALGORITHM FOR QUERYING A NETWORK DOMAIN 12236
SUBSIDIZED LOAN MANAGEMENT CIRCUIT 12238
BLOCKCHAIN SERVICE CIRCUIT 12240
DISTRIBUTED LEDGER 12242
DATA COLLECTION AND MONITORING CIRCUIT 12224
AUTOMATED AGENT 12226
MARKET VALUE DATA COLLECTION CIRCUIT 12228
SOCIAL NETWORK ANALYTIC DATA COLLECTION CIRCUIT 12214
USER INTERFACE 12216
CONDITION CLASSIFYING CIRCUIT 12218
MODEL 12220
SMART CONTRACT CIRCUIT 12222
ENTITY 12202
SUBSIDIZED LOAN TRANSACTION 12204
SUBSIDIZED LOAN PARAMETERS 12206
OUTCOMES TRAINING 12210
SUBSIDIZED LOAN 12208
TERMS AND CONDITIONS 12212

FIG. 122

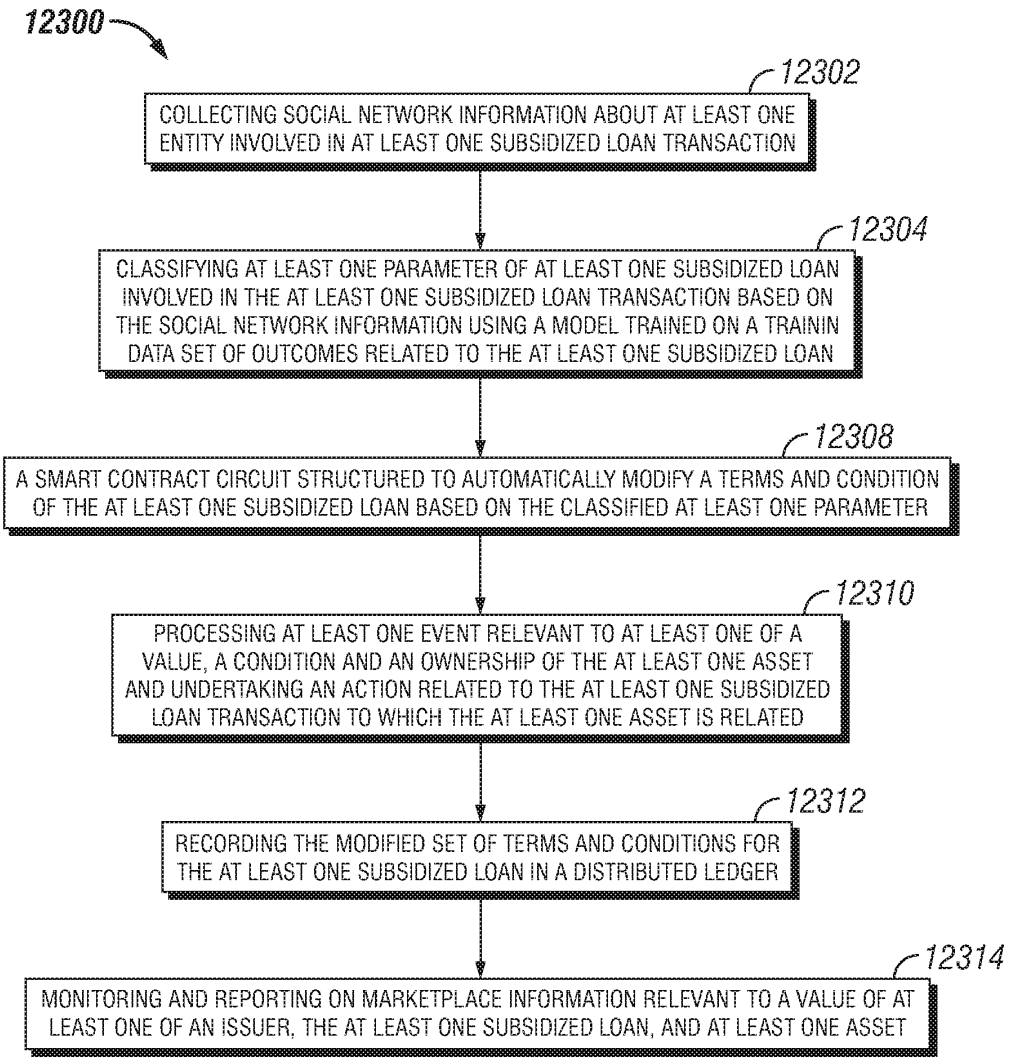
12300
12302
COLLECTING SOCIAL NETWORK INFORMATION ABOUT AT LEAST ONE ENTITY INVOLVED IN AT LEAST ONE SUBSIDIZED LOAN TRANSACTION
12304
CLASSIFYING AT LEAST ONE PARAMETER OF AT LEAST ONE SUBSIDIZED LOAN INVOLVED IN THE AT LEAST ONE SUBSIDIZED LOAN TRANSACTION BASED ON THE SOCIAL NETWORK INFORMATION USING A MODEL TRAINED ON A TRAININ DATA SET OF OUTCOMES RELATED TO THE AT LEAST ONE SUBSIDIZED LOAN
12308
A SMART CONTRACT CIRCUIT STRUCTURED TO AUTOMATICALLY MODIFY A TERMS AND CONDITION OF THE AT LEAST ONE SUBSIDIZED LOAN BASED ON THE CLASSIFIED AT LEAST ONE PARAMETER
12310
PROCESSING AT LEAST ONE EVENT RELEVANT TO AT LEAST ONE OF A VALUE, A CONDITION AND AN OWNERSHIP OF THE AT LEAST ONE ASSET AND UNDERTAKING AN ACTION RELATED TO THE AT LEAST ONE SUBSIDIZED LOAN TRANSACTION TO WHICH THE AT LEAST ONE ASSET IS RELATED
12312
RECORDING THE MODIFIED SET OF TERMS AND CONDITIONS FOR THE AT LEAST ONE SUBSIDIZED LOAN IN A DISTRIBUTED LEDGER
12314
MONITORING AND REPORTING ON MARKETPLACE INFORMATION RELEVANT TO A VALUE OF AT LEAST ONE OF AN ISSUER, THE AT LEAST ONE SUBSIDIZED LOAN, AND AT LEAST ONE ASSET

FIG. 123

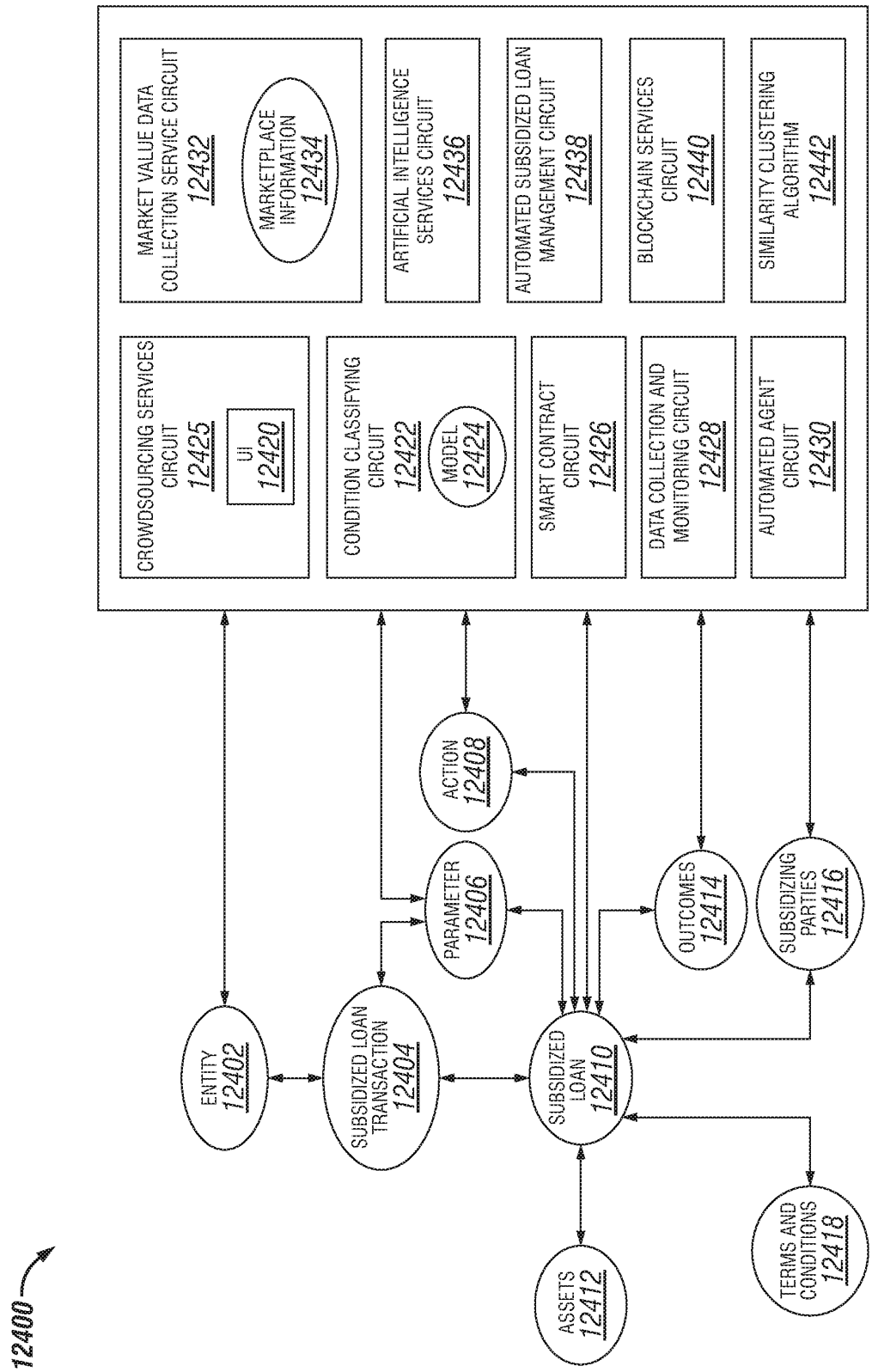
12400
MARKET VALUE DATA COLLECTION SERVICE CIRCUIT 12432
MARKETPLACE INFORMATION 12434
ARTIFICIAL INTELLIGENCE SERVICES CIRCUIT 12436
AUTOMATED SUBSIDIZED LOAN MANAGEMENT CIRCUIT 12438
BLOCKCHAIN SERVICES CIRCUIT 12440
SIMILARITY CLUSTERING ALGORITHM 12442
CROWDSOURCING SERVICES CIRCUIT 12425
UI 12420
CONDITION CLASSIFYING CIRCUIT 12422
MODEL 12424
SMART CONTRACT CIRCUIT 12426
DATA COLLECTION AND MONITORING CIRCUIT 12428
AUTOMATED AGENT CIRCUIT 12430
ACTION 12408
PARAMETER 12406
OUTCOMES 12414
SUBSIDIZING PARTIES 12416
ENTITY 12402
SUBSIDIZED LOAN TRANSACTION 12404
SUBSIDIZED LOAN 12410
ASSETS 12412
TERMS AND CONDITIONS 12418

FIG. 124

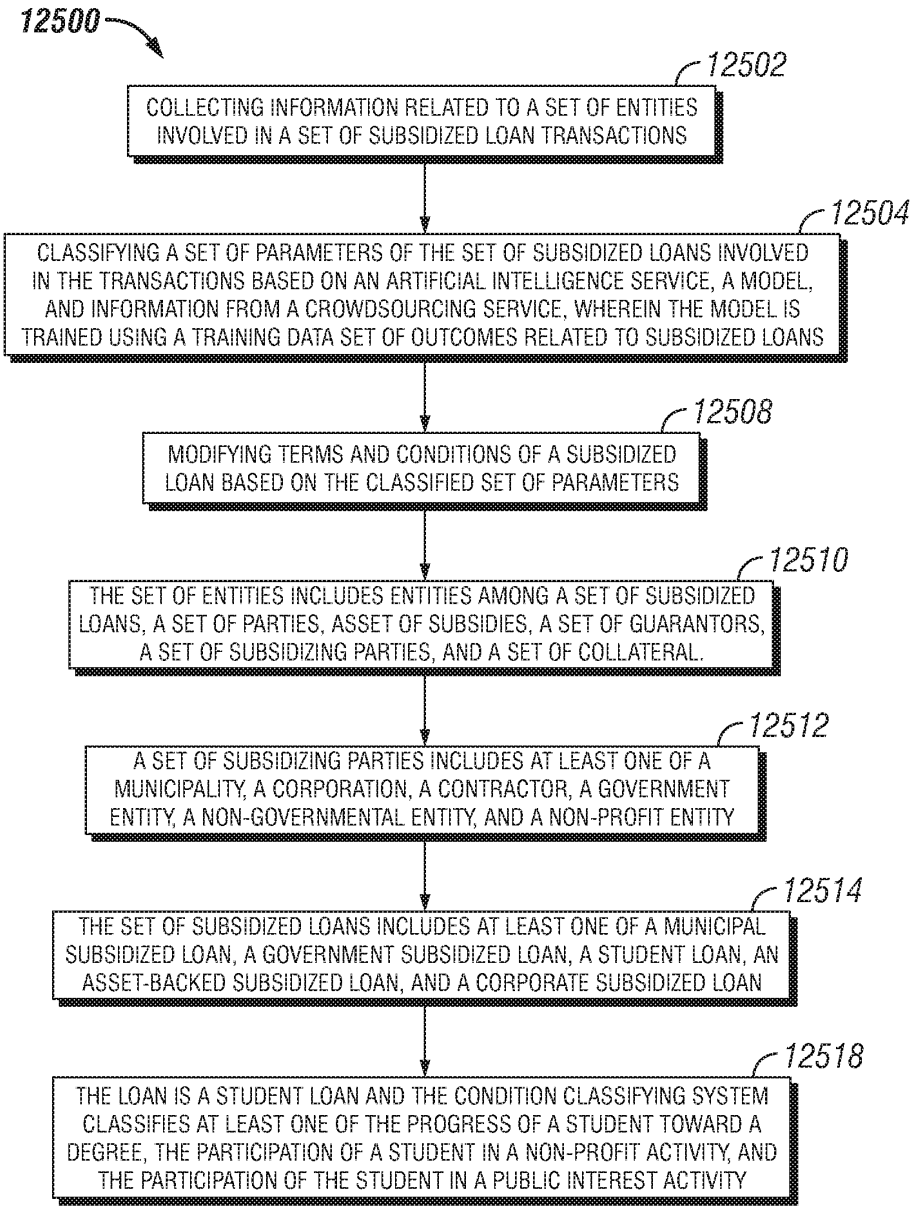
12500
12502
COLLECTING INFORMATION RELATED TO A SET OF ENTITIES INVOLVED IN A SET OF SUBSIDIZED LOAN TRANSACTIONS
12504
CLASSIFYING A SET OF PARAMETERS OF THE SET OF SUBSIDIZED LOANS INVOLVED IN THE TRANSACTIONS BASED ON AN ARTIFICIAL INTELLIGENCE SERVICE, A MODEL, AND INFORMATION FROM A CROWDSOURCING SERVICE, WHEREIN THE MODEL IS TRAINED USING A TRAINING DATA SET OF OUTCOMES RELATED TO SUBSIDIZED LOANS
12508
MODIFYING TERMS AND CONDITIONS OF A SUBSIDIZED LOAN BASED ON THE CLASSIFIED SET OF PARAMETERS
12510
THE SET OF ENTITIES INCLUDES ENTITIES AMONG A SET OF SUBSIDIZED LOANS, A SET OF PARTIES, ASSET OF SUBSIDIES, A SET OF GUARANTORS, A SET OF SUBSIDIZING PARTIES, AND A SET OF COLLATERAL.
12512
A SET OF SUBSIDIZING PARTIES INCLUDES AT LEAST ONE OF A MUNICIPALITY, A CORPORATION, A CONTRACTOR, A GOVERNMENT ENTITY, A NON-GOVERNMENTAL ENTITY, AND A NON-PROFIT ENTITY
12514
THE SET OF SUBSIDIZED LOANS INCLUDES AT LEAST ONE OF A MUNICIPAL SUBSIDIZED LOAN, A GOVERNMENT SUBSIDIZED LOAN, A STUDENT LOAN, AN ASSET-BACKED SUBSIDIZED LOAN, AND A CORPORATE SUBSIDIZED LOAN
12518
THE LOAN IS A STUDENT LOAN AND THE CONDITION CLASSIFYING SYSTEM CLASSIFIES AT LEAST ONE OF THE PROGRESS OF A STUDENT TOWARD A DEGREE, THE PARTICIPATION OF A STUDENT IN A NON-PROFIT ACTIVITY, AND THE PARTICIPATION OF THE STUDENT IN A PUBLIC INTEREST ACTIVITY

FIG. 125

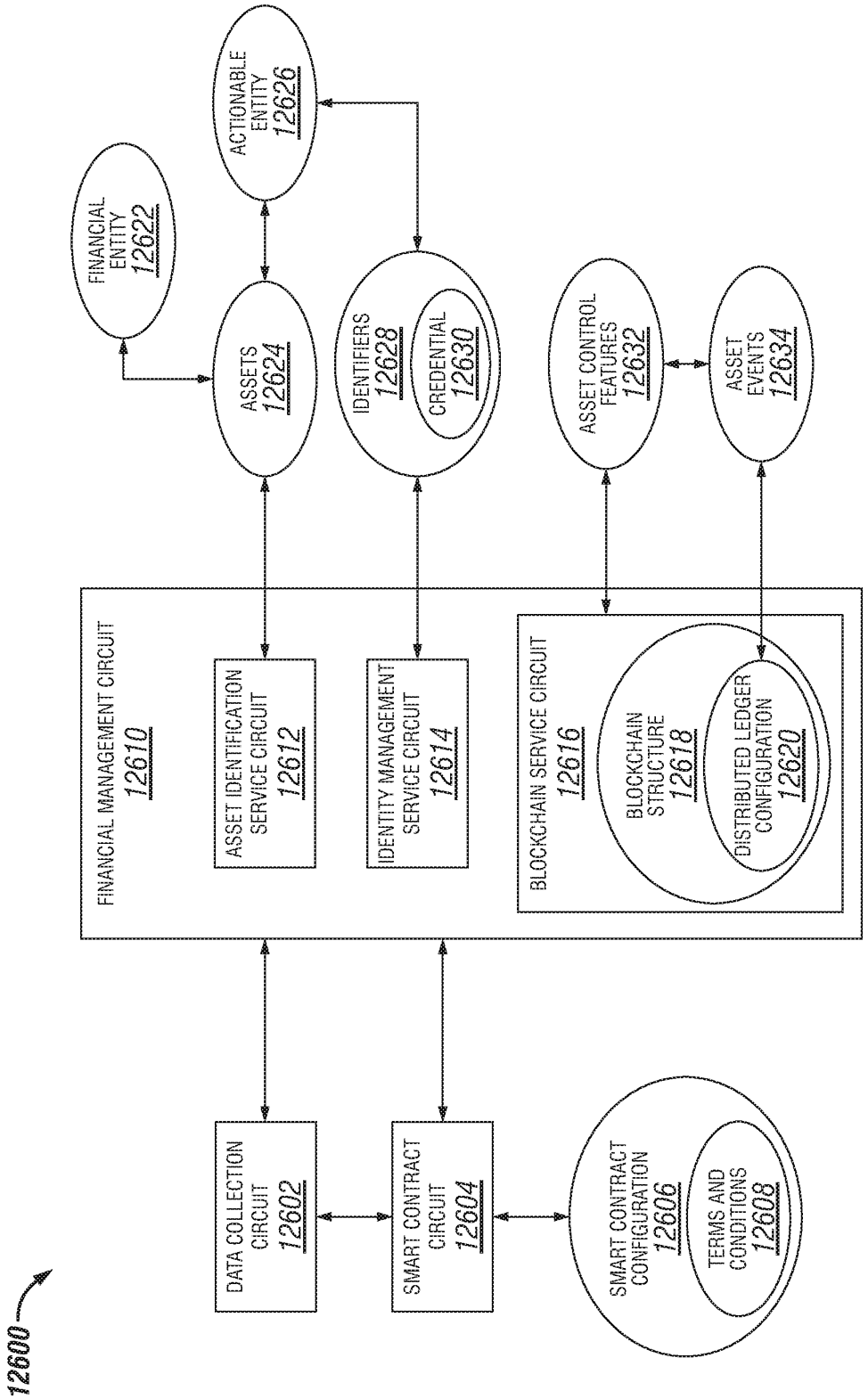
12600
FINANCIAL MANAGEMENT CIRCUIT
12610
ASSET IDENTIFICATION SERVICE CIRCUIT
12612
IDENTITY MANAGEMENT SERVICE CIRCUIT
12614
BLOCKCHAIN SERVICE CIRCUIT
12616
BLOCKCHAIN STRUCTURE
12618
DISTRIBUTED LEDGER CONFIGURATION
12620
DATA COLLECTION CIRCUIT
12602
SMART CONTRACT CIRCUIT
12604
SMART CONTRACT CONFIGURATION
12606
TERMS AND CONDITIONS
12608
FINANCIAL ENTITY
12622
ACTIONABLE ENTITY
12626
ASSETS
12624
IDENTIFIERS
12628
CREDENTIAL
12630
ASSET CONTROL FEATURES
12632
ASSET EVENTS
12634

FIG. 126

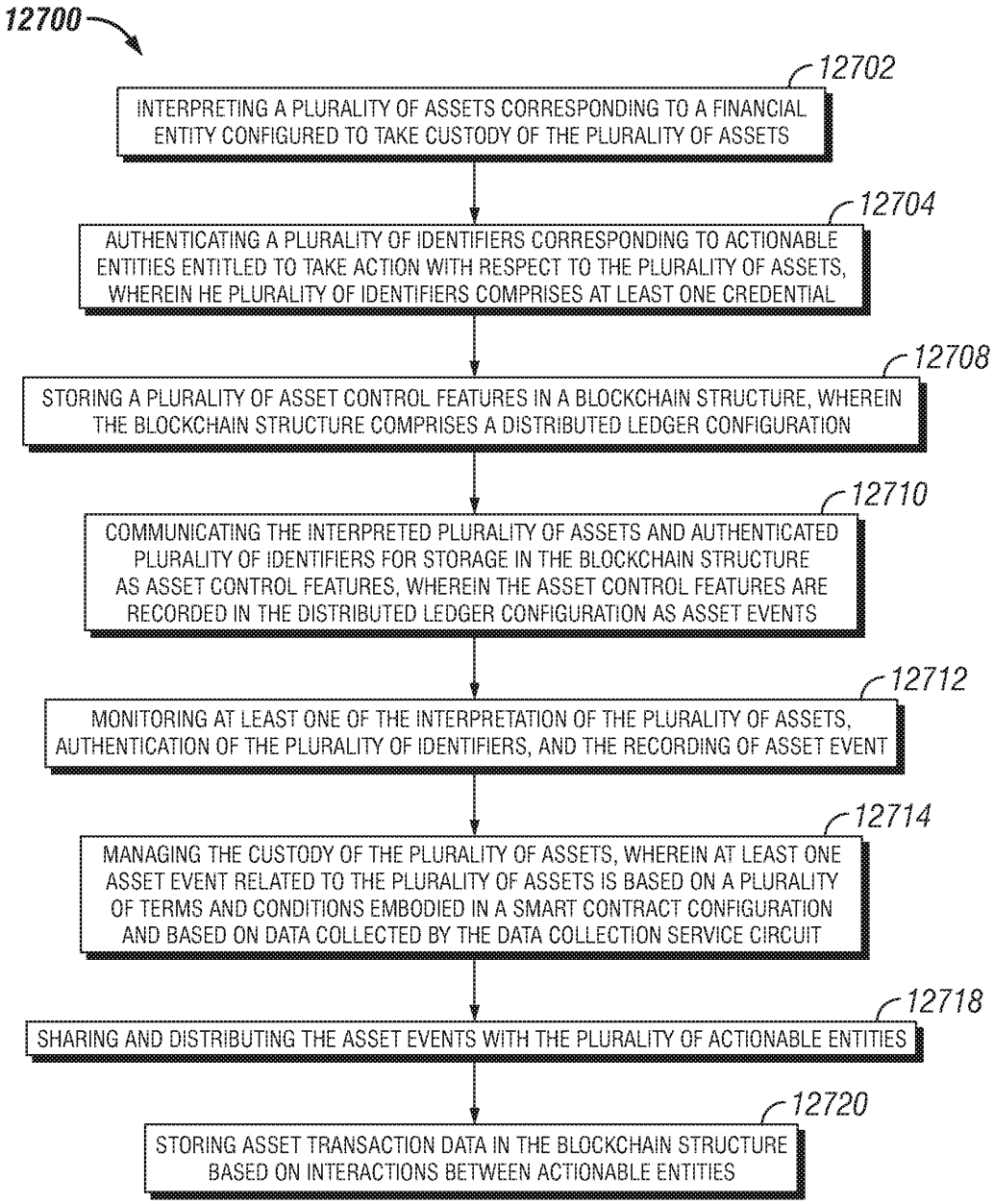
12700
12702
INTERPRETING A PLURALITY OF ASSETS CORRESPONDING TO A FINANCIAL ENTITY CONFIGURED TO TAKE CUSTODY OF THE PLURALITY OF ASSETS
12704
AUTHENTICATING A PLURALITY OF IDENTIFIERS CORRESPONDING TO ACTIONABLE ENTITIES ENTITLED TO TAKE ACTION WITH RESPECT TO THE PLURALITY OF ASSETS, WHEREIN HE PLURALITY OF IDENTIFIERS COMPRISES AT LEAST ONE CREDENTIAL
12708
STORING A PLURALITY OF ASSET CONTROL FEATURES IN A BLOCKCHAIN STRUCTURE, WHEREIN THE BLOCKCHAIN STRUCTURE COMPRISES A DISTRIBUTED LEDGER CONFIGURATION
12710
COMMUNICATING THE INTERPRETED PLURALITY OF ASSETS AND AUTHENTICATED PLURALITY OF IDENTIFIERS FOR STORAGE IN THE BLOCKCHAIN STRUCTURE AS ASSET CONTROL FEATURES, WHEREIN THE ASSET CONTROL FEATURES ARE RECORDED IN THE DISTRIBUTED LEDGER CONFIGURATION AS ASSET EVENTS
12712
MONITORING AT LEAST ONE OF THE INTERPRETATION OF THE PLURALITY OF ASSETS, AUTHENTICATION OF THE PLURALITY OF IDENTIFIERS, AND THE RECORDING OF ASSET EVENT
12714
MANAGING THE CUSTODY OF THE PLURALITY OF ASSETS, WHEREIN AT LEAST ONE ASSET EVENT RELATED TO THE PLURALITY OF ASSETS IS BASED ON A PLURALITY OF TERMS AND CONDITIONS EMBODIED IN A SMART CONTRACT CONFIGURATION AND BASED ON DATA COLLECTED BY THE DATA COLLECTION SERVICE CIRCUIT
12718
SHARING AND DISTRIBUTING THE ASSET EVENTS WITH THE PLURALITY OF ACTIONABLE ENTITIES
12720
STORING ASSET TRANSACTION DATA IN THE BLOCKCHAIN STRUCTURE BASED ON INTERACTIONS BETWEEN ACTIONABLE ENTITIES

FIG. 127

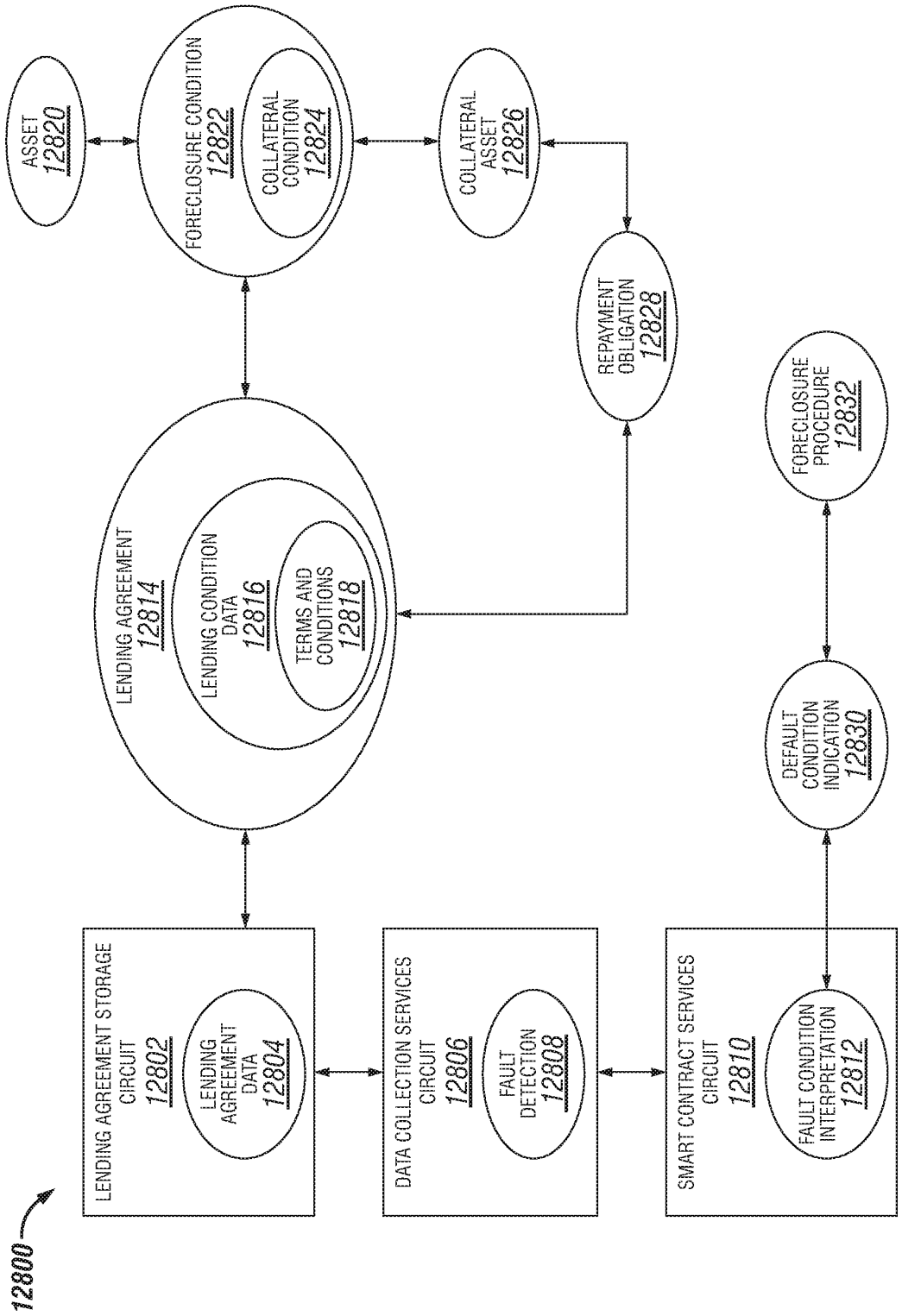
12800
LENDING AGREEMENT STORAGE CIRCUIT 12802
LENDING AGREEMENT DATA 12804
DATA COLLECTION SERVICES CIRCUIT 12806
FAULT DETECTION 12808
SMART CONTRACT SERVICES CIRCUIT 12810
FAULT CONDITION INTERPRETATION 12812
LENDING AGREEMENT 12814
LENDING CONDITION DATA 12816
TERMS AND CONDITIONS 12818
ASSET 12820
FORECLOSURE CONDITION 12822
COLLATERAL CONDITION 12824
COLLATERAL ASSET 12826
REPAYMENT OBLIGATION 12828
DEFAULT CONDITION INDICATION 12830
FORECLOSURE PROCEDURE 12832

FIG. 128

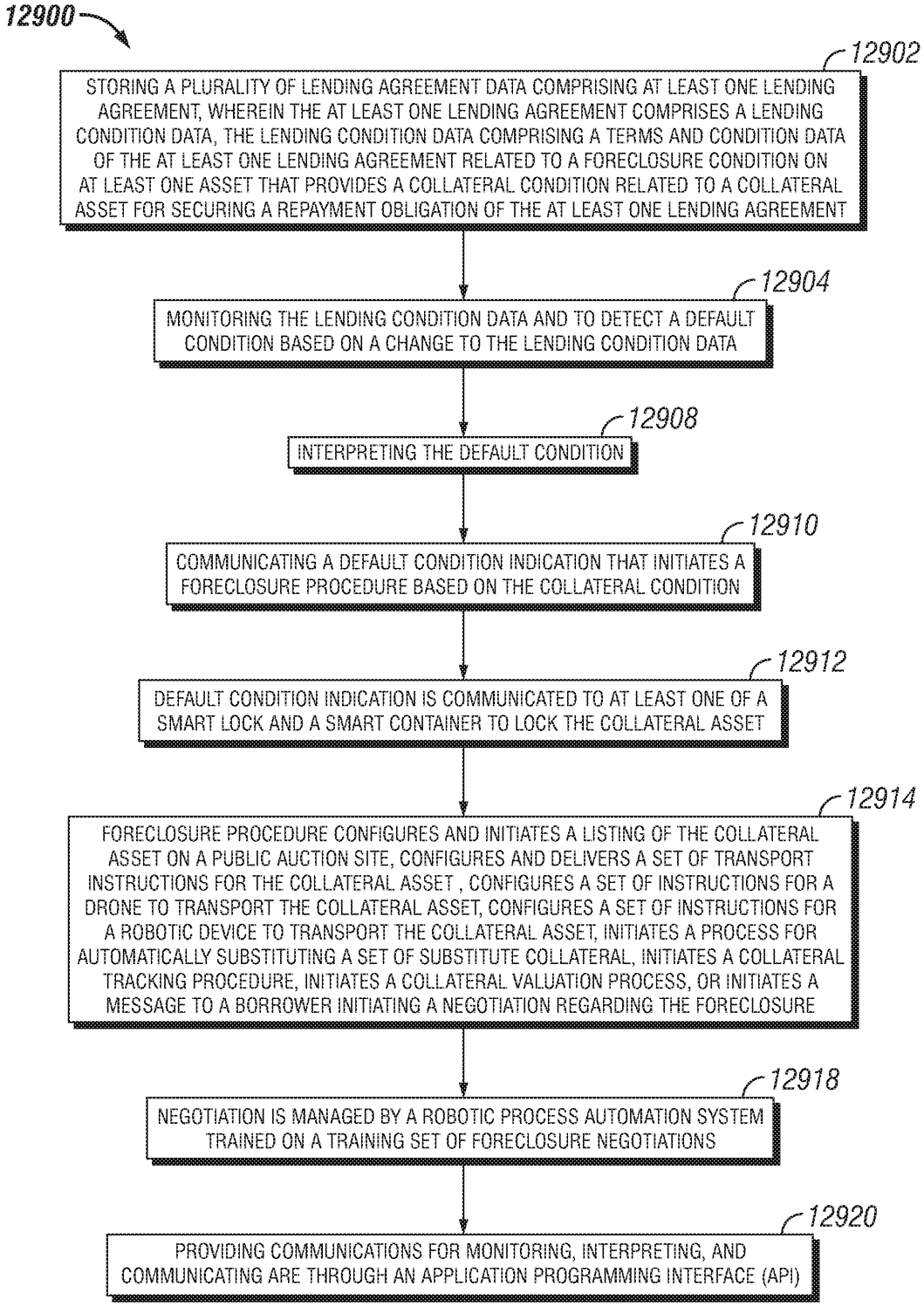
12900
12902
STORING A PLURALITY OF LENDING AGREEMENT DATA COMPRISING AT LEAST ONE LENDING AGREEMENT, WHEREIN THE AT LEAST ONE LENDING AGREEMENT COMPRISES A LENDING CONDITION DATA, THE LENDING CONDITION DATA COMPRISING A TERMS AND CONDITION DATA OF THE AT LEAST ONE LENDING AGREEMENT RELATED TO A FORECLOSURE CONDITION ON AT LEAST ONE ASSET THAT PROVIDES A COLLATERAL CONDITION RELATED TO A COLLATERAL ASSET FOR SECURING A REPAYMENT OBLIGATION OF THE AT LEAST ONE LENDING AGREEMENT
12904
MONITORING THE LENDING CONDITION DATA AND TO DETECT A DEFAULT CONDITION BASED ON A CHANGE TO THE LENDING CONDITION DATA
12908
INTERPRETING THE DEFAULT CONDITION
12910
COMMUNICATING A DEFAULT CONDITION INDICATION THAT INITIATES A FORECLOSURE PROCEDURE BASED ON THE COLLATERAL CONDITION
12912
DEFAULT CONDITION INDICATION IS COMMUNICATED TO AT LEAST ONE OF A SMART LOCK AND A SMART CONTAINER TO LOCK THE COLLATERAL ASSET
12914
FORECLOSURE PROCEDURE CONFIGURES AND INITIATES A LISTING OF THE COLLATERAL ASSET ON A PUBLIC AUCTION SITE, CONFIGURES AND DELIVERS A SET OF TRANSPORT INSTRUCTIONS FOR THE COLLATERAL ASSET , CONFIGURES A SET OF INSTRUCTIONS FOR A DRONE TO TRANSPORT THE COLLATERAL ASSET, CONFIGURES A SET OF INSTRUCTIONS FOR A ROBOTIC DEVICE TO TRANSPORT THE COLLATERAL ASSET, INITIATES A PROCESS FOR AUTOMATICALLY SUBSTITUTING A SET OF SUBSTITUTE COLLATERAL, INITIATES A COLLATERAL TRACKING PROCEDURE, INITIATES A COLLATERAL VALUATION PROCESS, OR INITIATES A MESSAGE TO A BORROWER INITIATING A NEGOTIATION REGARDING THE FORECLOSURE
12918
NEGOTIATION IS MANAGED BY A ROBOTIC PROCESS AUTOMATION SYSTEM TRAINED ON A TRAINING SET OF FORECLOSURE NEGOTIATIONS
12920
PROVIDING COMMUNICATIONS FOR MONITORING, INTERPRETING, AND COMMUNICATING ARE THROUGH AN APPLICATION PROGRAMMING INTERFACE (API)

FIG. 129

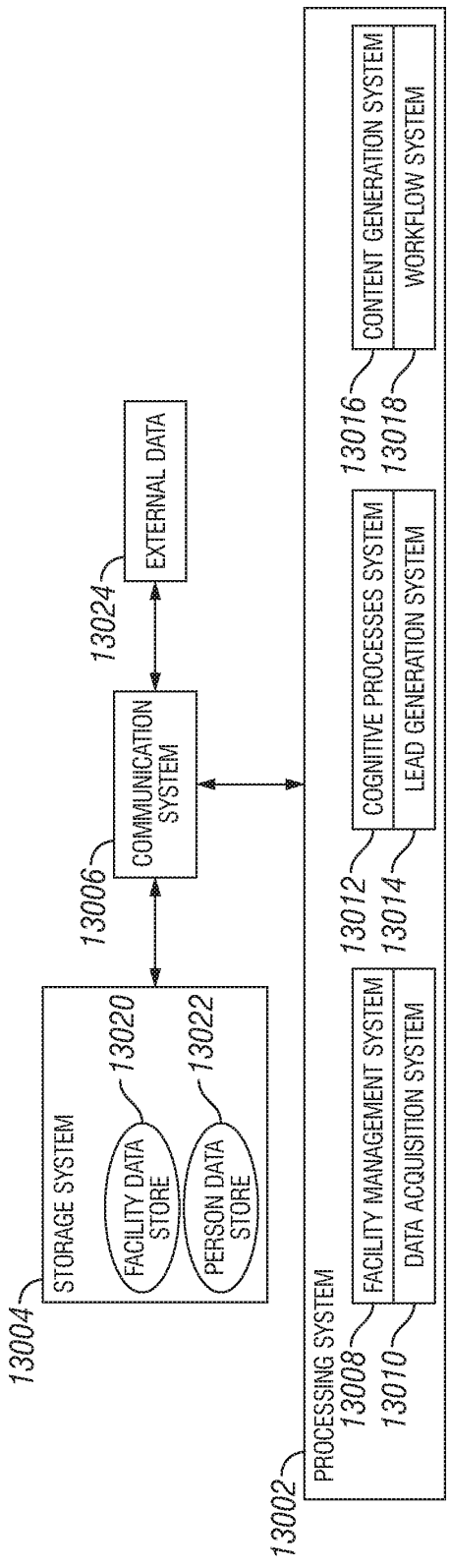

FIG. 130

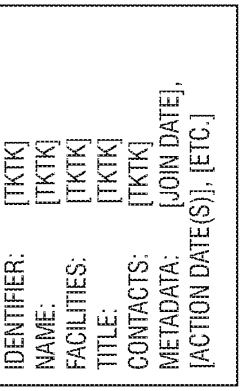

FIG. 132

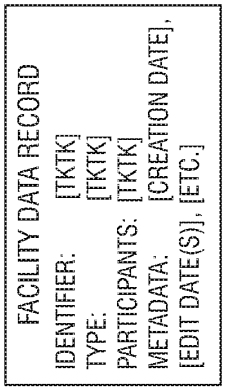

FIG. 131

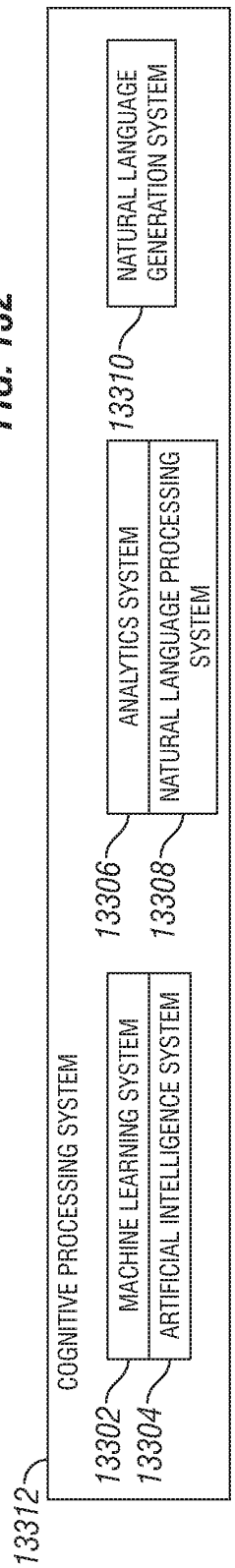

FIG. 133

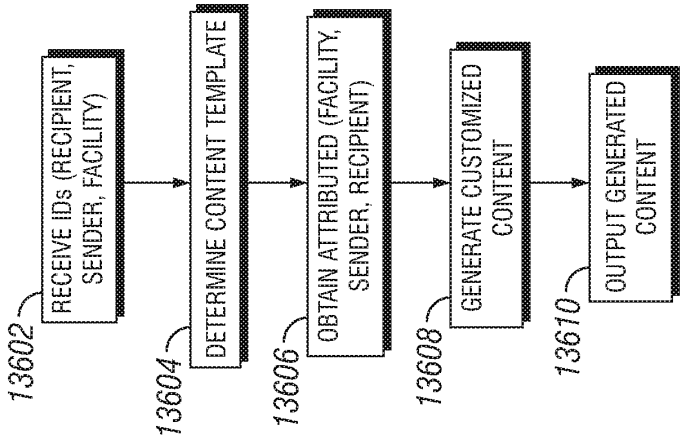

FIG. 136

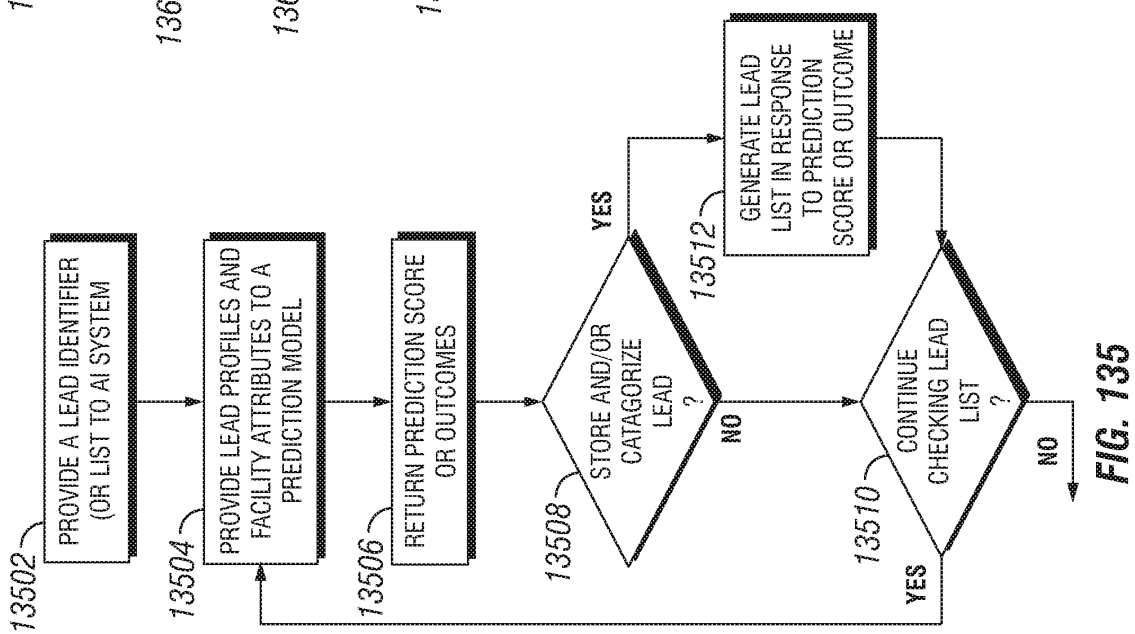

FIG. 135

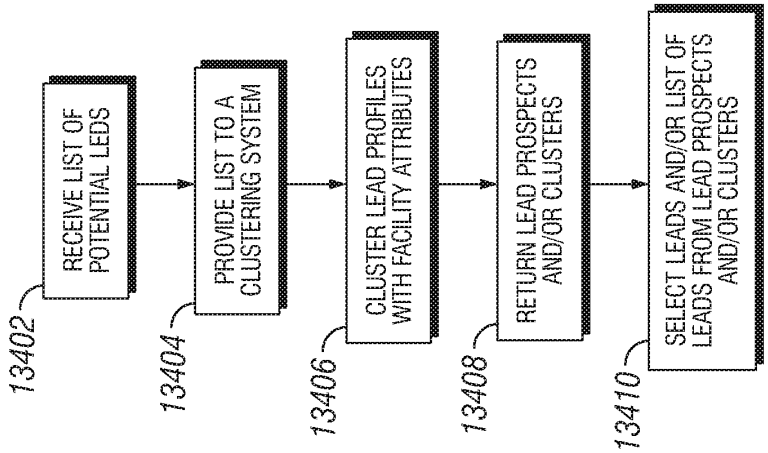

FIG. 134