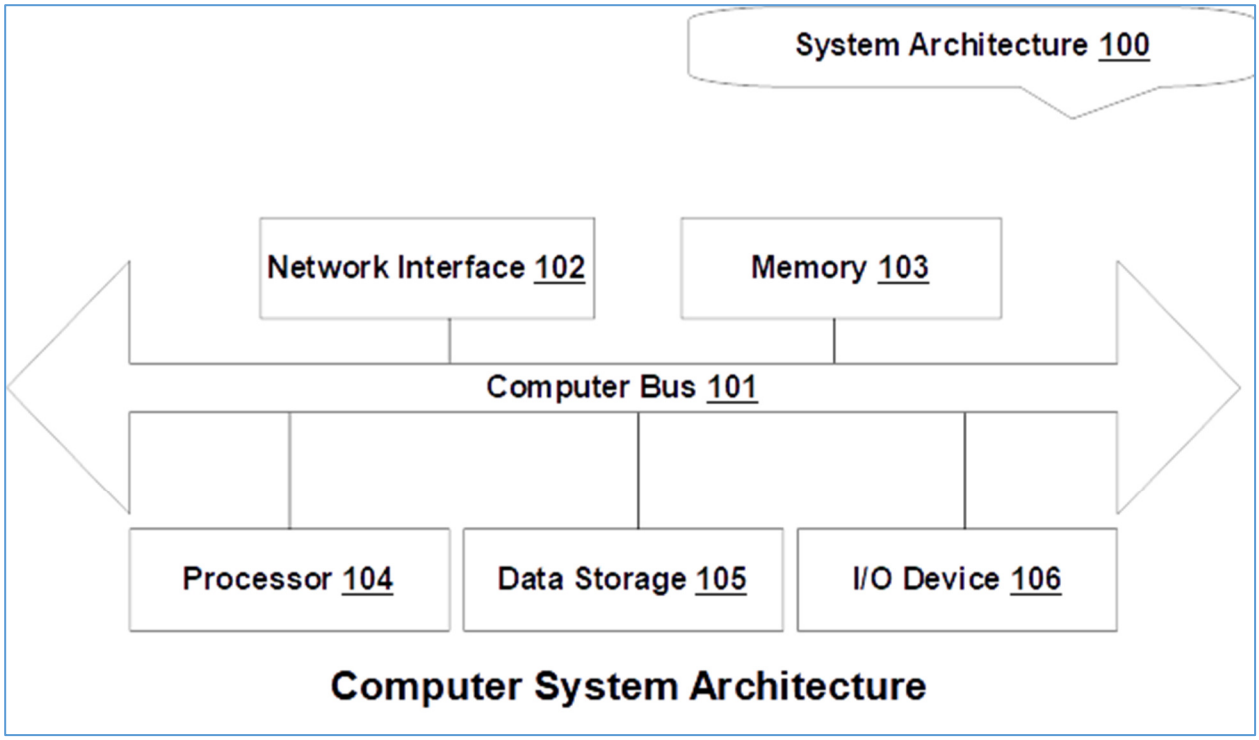
System Architecture 100
Network Interface 102
Memory 103
Computer Bus 101
Processor 104
Data Storage 105
I/O Device 106
Computer System Architecture

FIGURE 1

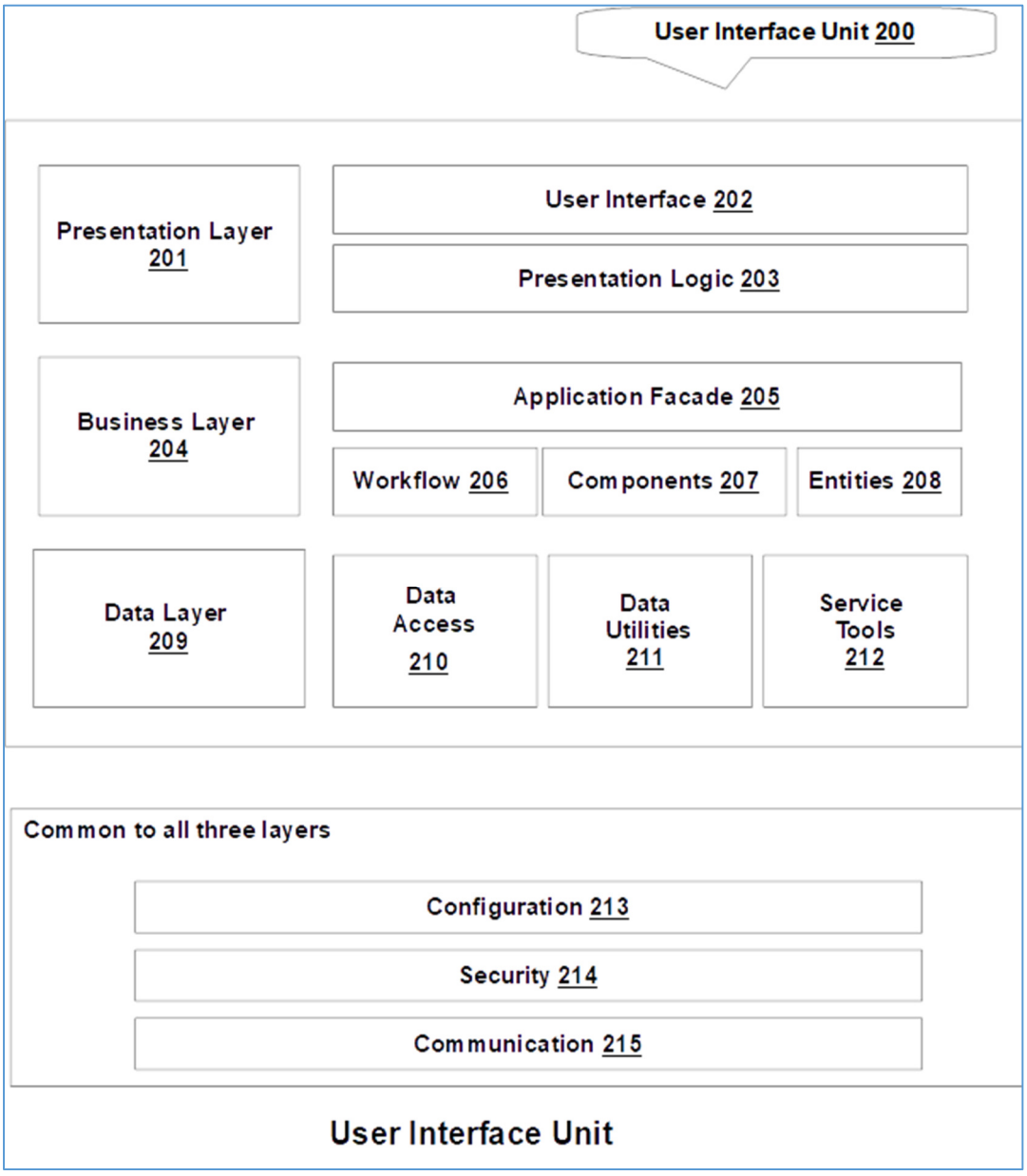
User Interface Unit 200
Presentation Layer 201
User Interface 202
Presentation Logic 203
Business Layer 204
Application Facade 205
Workflow 206
Components 207
Entities 208
Data Layer 209
Data Access 210
Data Utilities 211
Service Tools 212
Common to all three layers
Configuration 213
Security 214
Communication 215
User Interface Unit

FIGURE 2

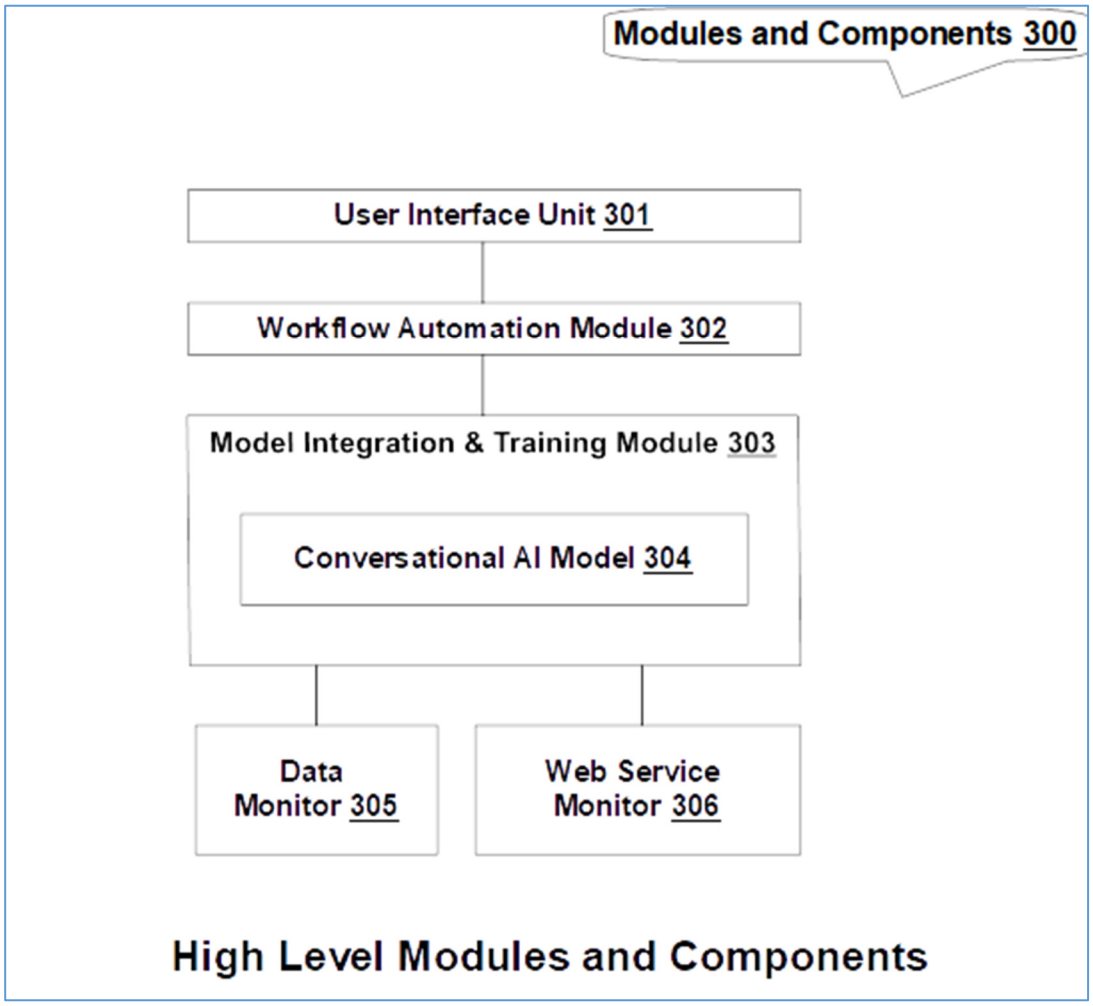
Modules and Components 300
User Interface Unit 301
Workflow Automation Module 302
Model Integration & Training Module 303
Conversational AI Model 304
Data Monitor 305
Web Service Monitor 306
High Level Modules and Components

FIGURE 3

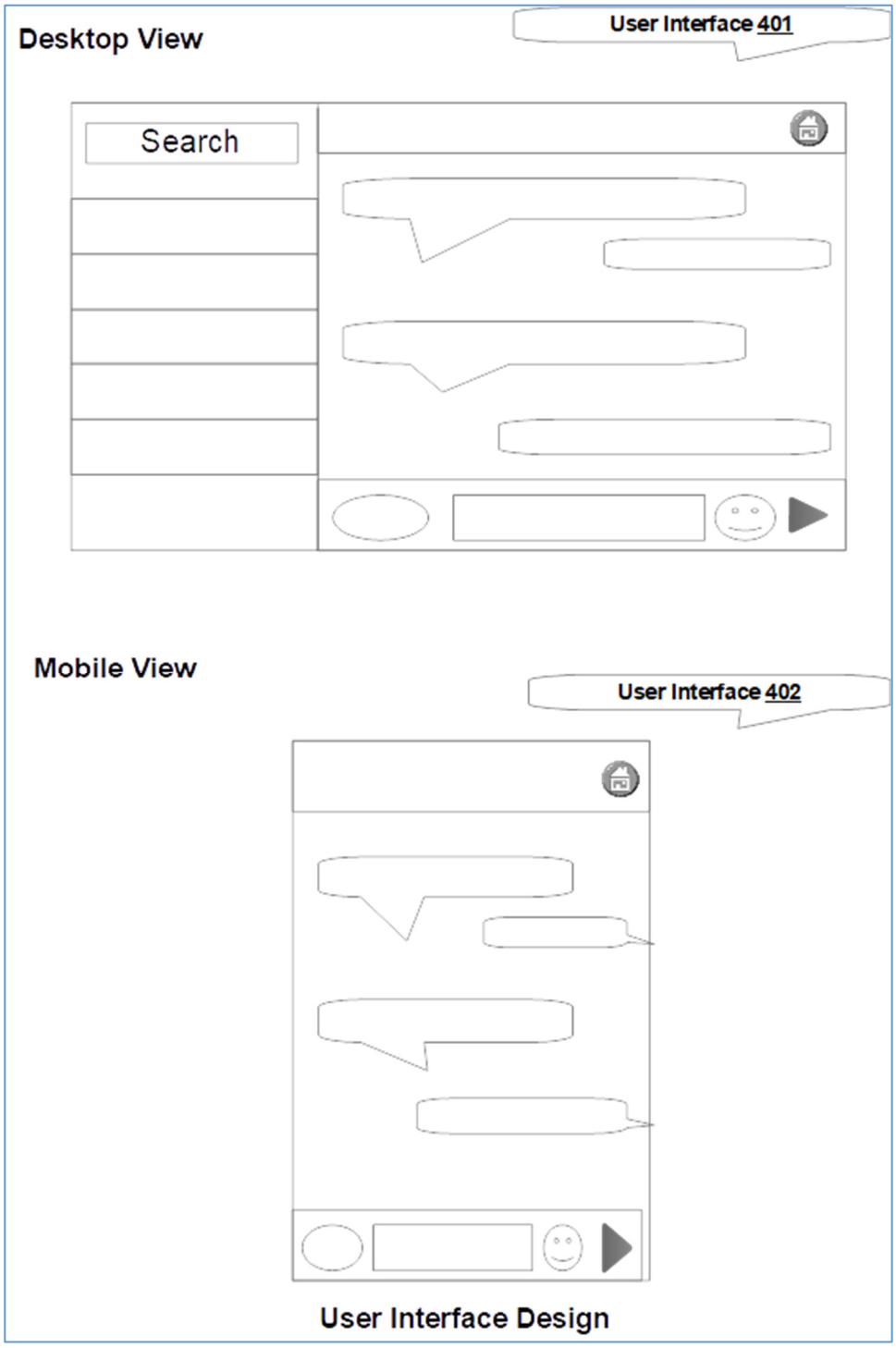
Desktop View
User Interface 401
Search
Mobile View
User Interface 402
User Interface Design

FIGURE 4

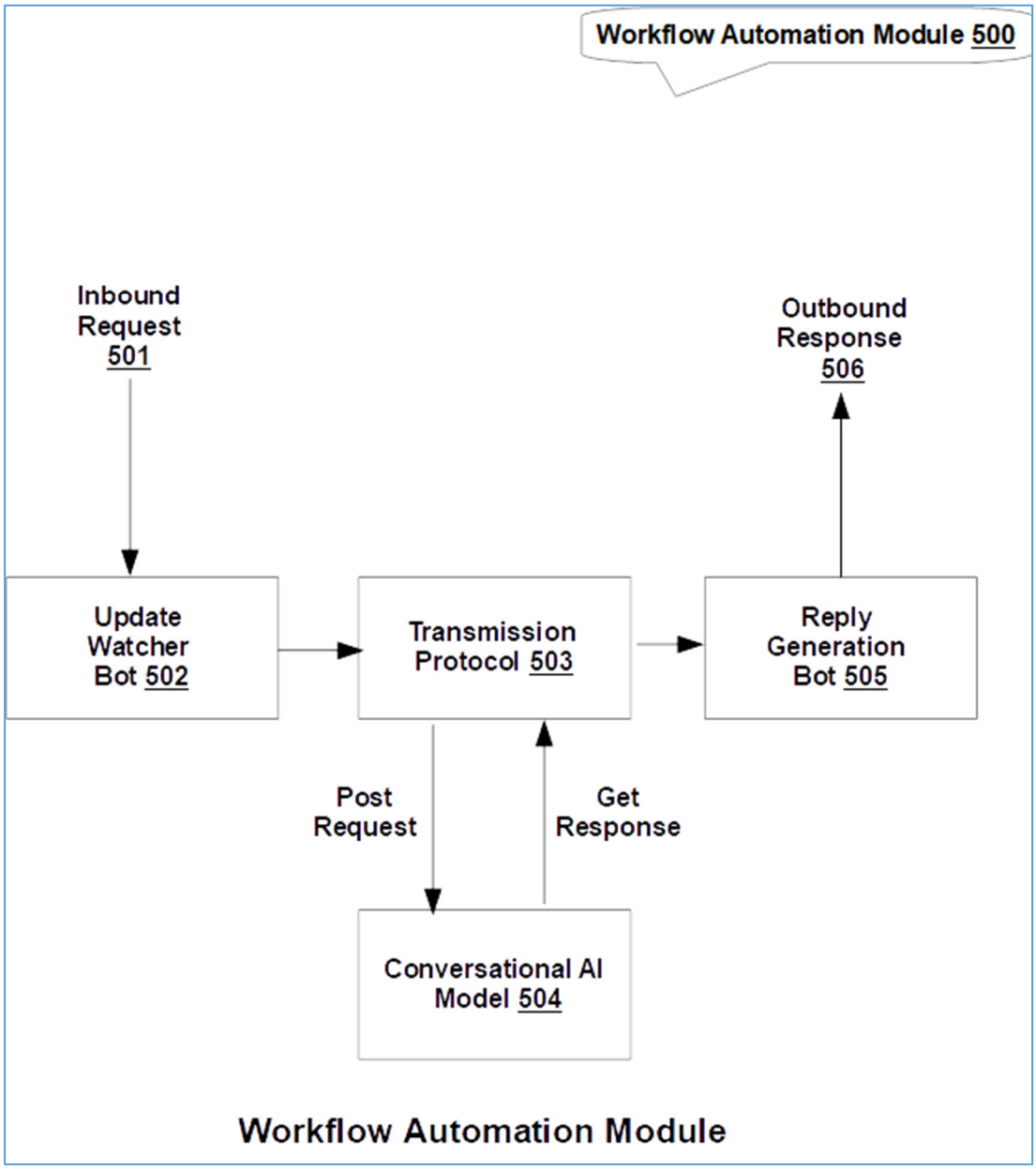
Workflow Automation Module 500
Inbound Request 501
Outbound Response 506
Update Watcher Bot 502
Transmission Protocol 503
Reply Generation Bot 505
Post Request
Get Response
Conversational AI Model 504
Workflow Automation Module

FIGURE 5

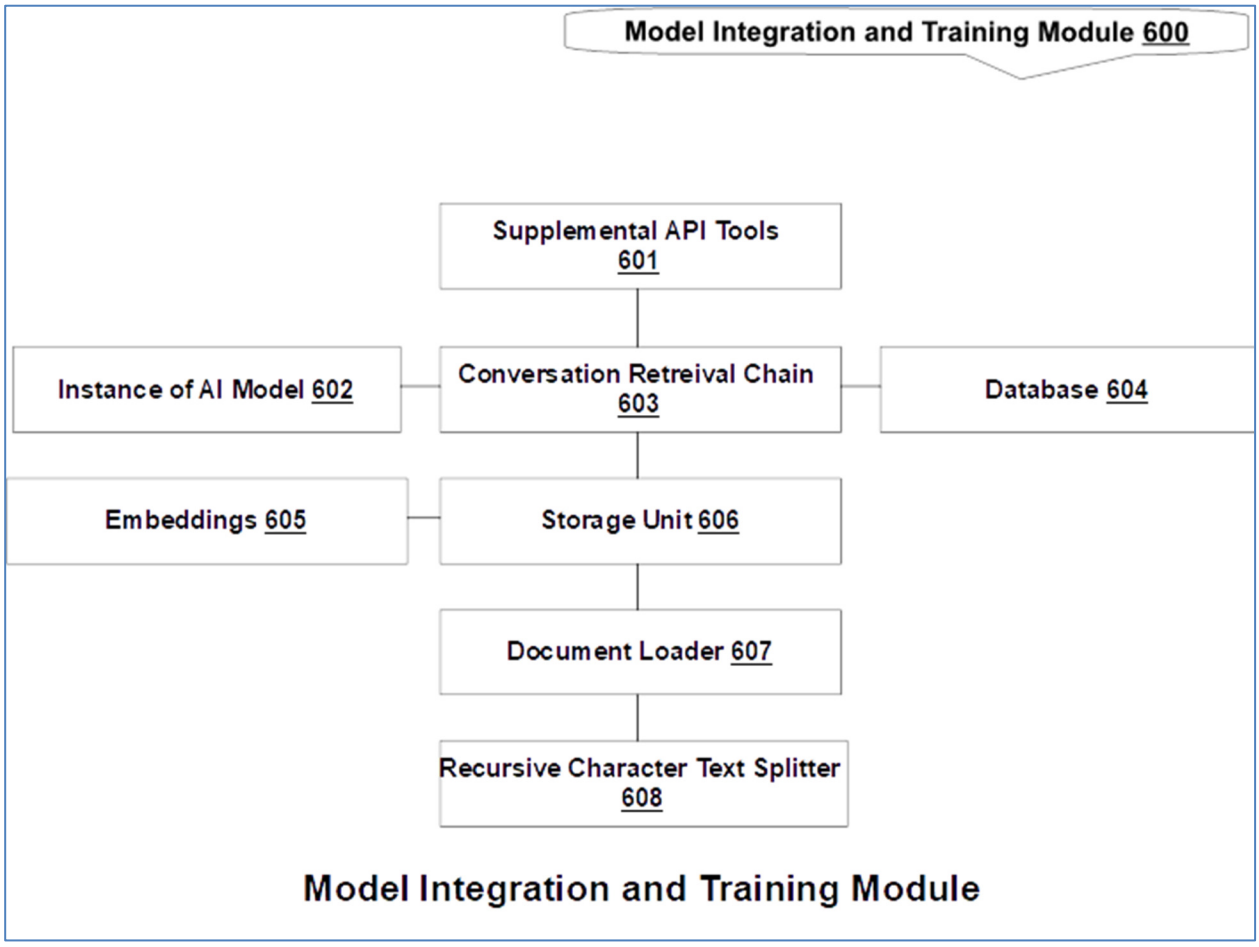
Model Integration and Training Module 600
Supplemental API Tools 601
Instance of AI Model 602
Conversation Retreival Chain 603
Database 604
Embeddings 605
Storage Unit 606
Document Loader 607
Recursive Character Text Splitter 608
Model Integration and Training Module

FIGURE 6

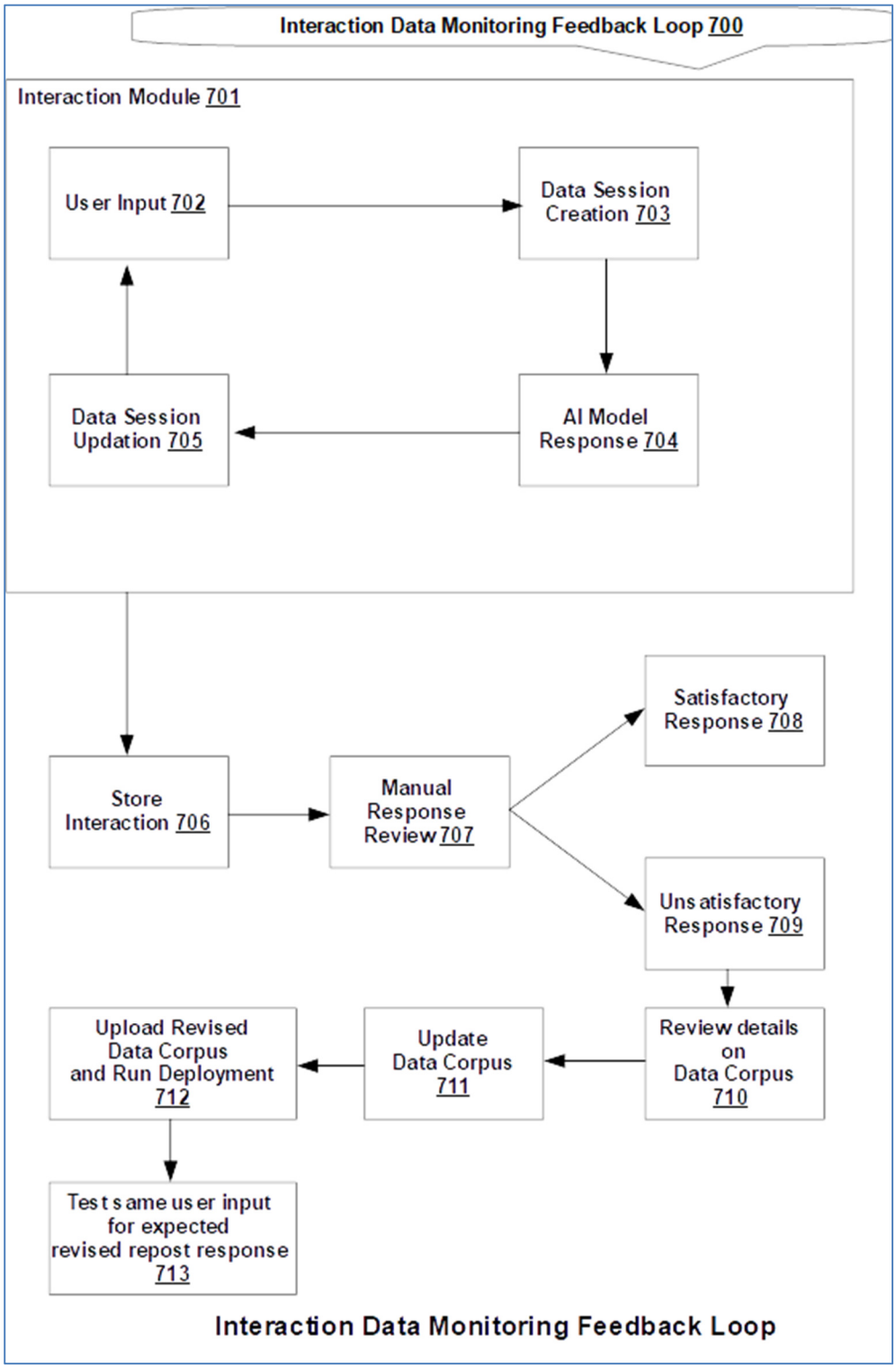
Interaction Data Monitoring Feedback Loop 700
Interaction Module 701
User Input 702
Data Session Creation 703
AI Model Response 704
Data Session Updation 705
Store Interaction 706
Manual Response Review 707
Satisfactory Response 708
Unsatisfactory Response 709
Review details on Data Corpus 710
Update Data Corpus 711
Upload Revised Data Corpus and Run Deployment 712
Test same user input for expected revised repost response 713
Interaction Data Monitoring Feedback Loop

FIGURE 7

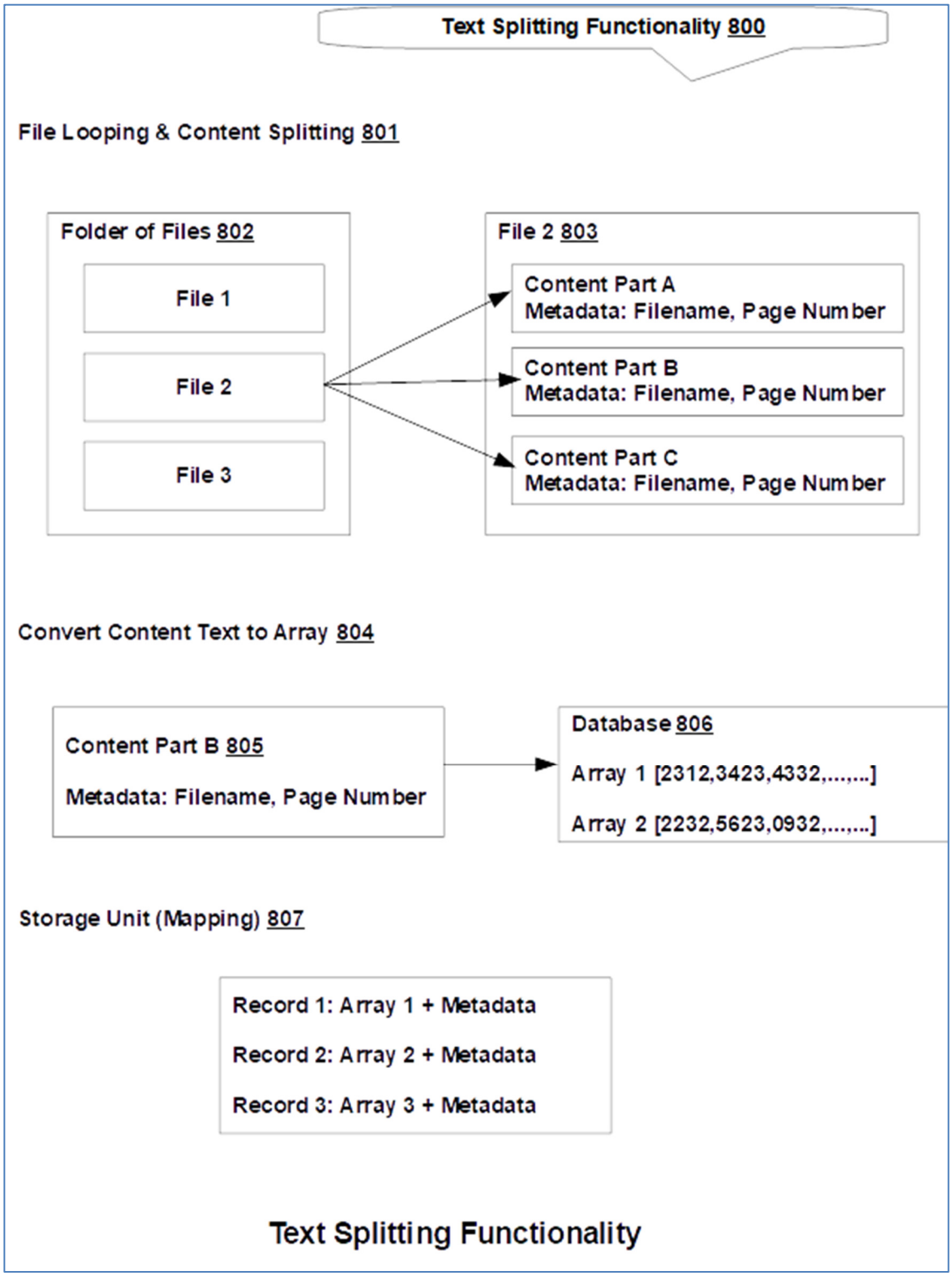
Text Splitting Functionality 800
File Looping & Content Splitting 801
Folder of Files 802
File 1
File 2
File 3
File 2 803
Content Part A
Metadata: Filename, Page Number
Content Part B
Metadata: Filename, Page Number
Content Part C
Metadata: Filename, Page Number
Convert Content Text to Array 804
Content Part B 805
Metadata: Filename, Page Number
Database 806
Array 1 [2312,3423,4332,.....]
Array 2 [2232,5623,0932,.....]
Storage Unit (Mapping) 807
Record 1: Array 1 + Metadata
Record 2: Array 2 + Metadata
Record 3: Array 3 + Metadata
Text Splitting Functionality

FIGURE 8

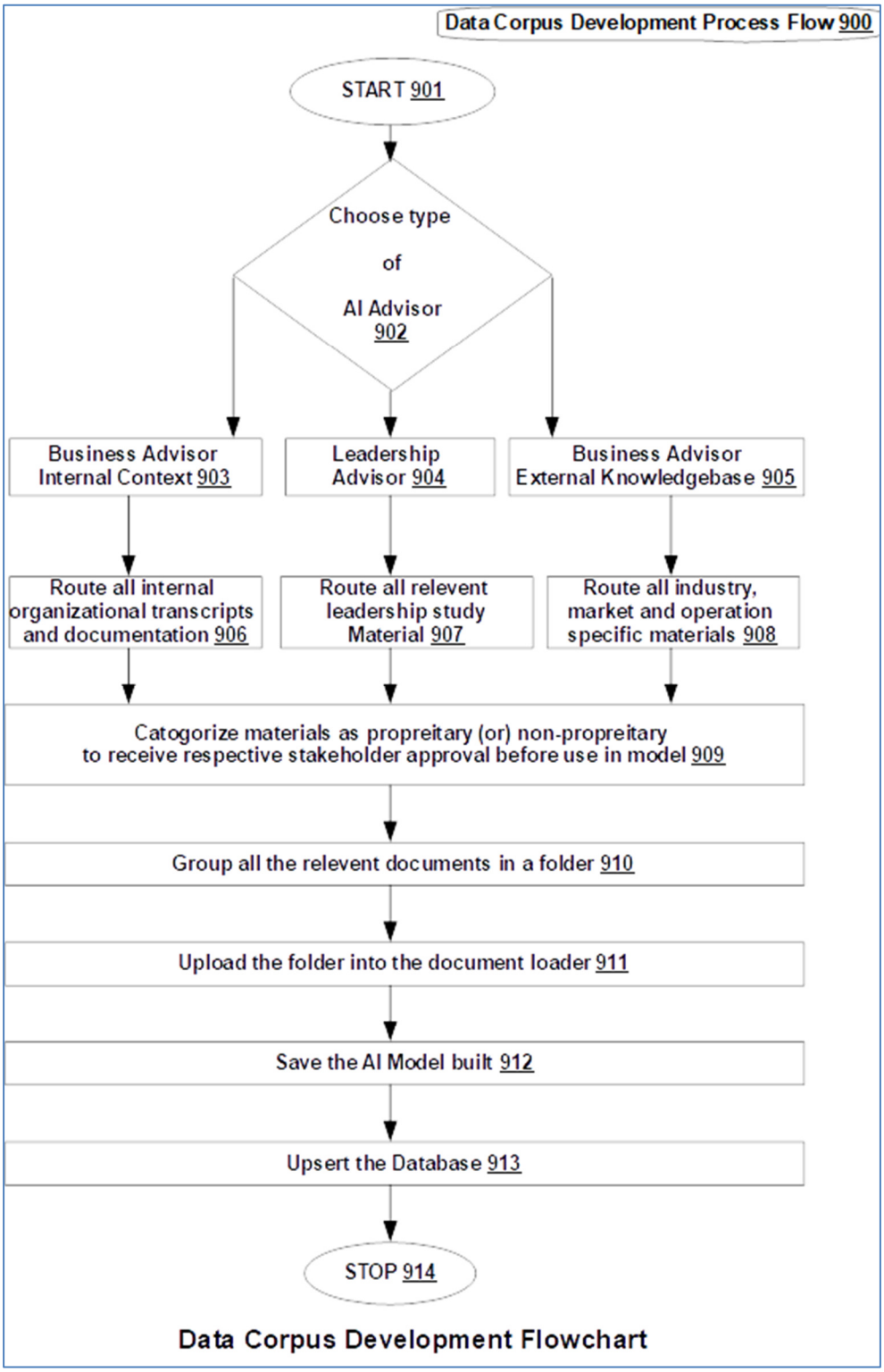
Data Corpus Development Process Flow 900
START 901
Choose type of AI Advisor 902
Business Advisor Internal Context 903
Leadership Advisor 904
Business Advisor External Knowledgebase 905
Route all internal organizational transcripts and documentation 906
Route all relevent leadership study Material 907
Route all industry, market and operation specific materials 908
Catogorize materials as propreitary (or) non-propreitary to receive respective stakeholder approval before use in model 909
Group all the relevent documents in a folder 910
Upload the folder into the document loader 911
Save the AI Model built 912
Upsert the Database 913
STOP 914
Data Corpus Development Flowchart

FIGURE 9

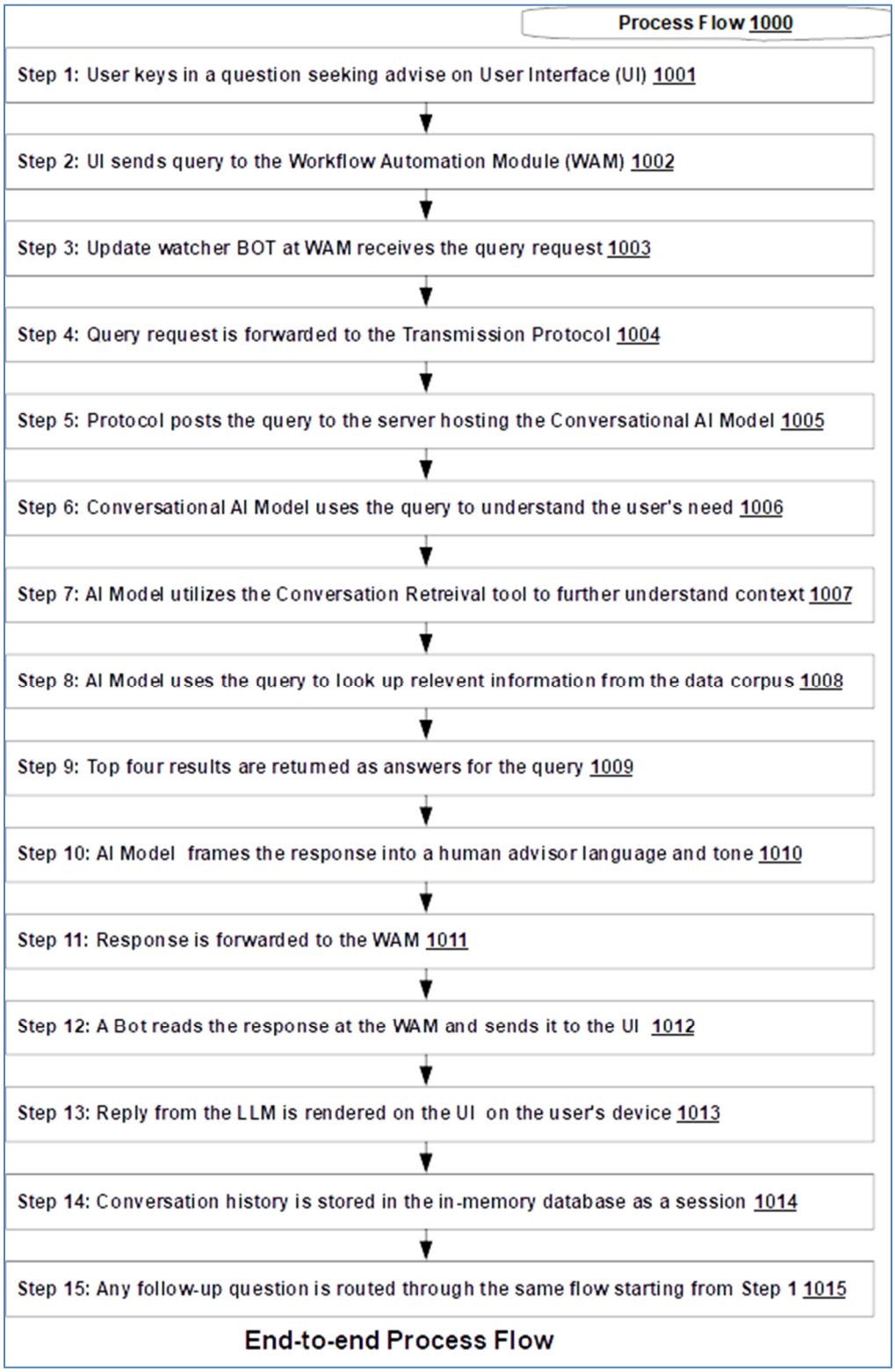
Process Flow 1000
Step 1: User keys in a question seeking advise on User Interface (UI) 1001
Step 2: UI sends query to the Workflow Automation Module (WAM) 1002
Step 3: Update watcher BOT at WAM receives the query request 1003
Step 4: Query request is forwarded to the Transmission Protocol 1004
Step 5: Protocol posts the query to the server hosting the Conversational AI Model 1005
Step 6: Conversational AI Model uses the query to understand the user's need 1006
Step 7: AI Model utilizes the Conversation Retreival tool to further understand context 1007
Step 8: AI Model uses the query to look up relevent information from the data corpus 1008
Step 9: Top four results are returned as answers for the query 1009
Step 10: AI Model frames the response into a human advisor language and tone 1010
Step 11: Response is forwarded to the WAM 1011
Step 12: A Bot reads the response at the WAM and sends it to the UI 1012
Step 13: Reply from the LLM is rendered on the UI on the user's device 1013
Step 14: Conversation history is stored in the in-memory database as a session 1014
Step 15: Any follow-up question is routed through the same flow starting from Step 1 1015
End-to-end Process Flow

FIGURE 10