

How-to guide

SERVICE OPERATIONS AGENT

A practical guide for developers looking to build and use an AI-powered customer service assistant.

Service Operations Agent – How-to guide

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OVERCOMING TRADITIONAL SERVICE OPERATIONS CHALLENGES

In a traditional service operations workplace, analysts often face challenges that hinder their productivity and ability to deliver timely resolutions. These issues often result in decreased work output, missed deadlines, increased stress levels, and requester dissatisfaction.

Resolving problems typically relies on individual expertise, tedious and time-consuming research, and trial and error. Service operations involve long-running serial tasks, and any attempt to parallelize these tasks often exacerbates resolution times and diminishes customer care.

Discrepancies between experienced and inexperienced analysts further complicate matters. Some solutions are routine and could be automated. Limited resources and restricted access to shared information also impede productivity.

Overall, difficulties in accessing relevant information significantly impact employee morale and customer satisfaction, underscoring the need for a more efficient solution.

INTRODUCING THE SERVICE OPERATIONS AGENT

The Service Operations Agent is an AI-powered assistant designed to automate and optimize various service operations tasks, such as ticketing, scheduling, and basic troubleshooting.

This guide serves as a blueprint and practical resource for developers, presenting a systematic approach to developing a powerful customer service assistant, the Service Operations Agent, by using the power of AI-powered automation from Automation Anywhere.

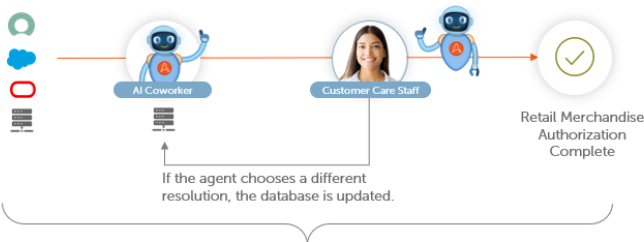
The agent utilizes generative AI and automation to enhance efficiency, accuracy, and scalability by executing routine tasks, making informed decisions, and providing insights through data analysis. Seamlessly integrating with existing IT and CRM systems, the agent ensures smooth data flow and enhanced operational performance.

Key benefits include increased efficiency, enhanced customer experience, cost savings, scalability, and proactive problem-solving, making it a transformative tool in modern service operations.

Intelligent Service Agent

1. Read and understand free text on Help Portal
2. Grasp intent and look up solutions based on company knowledge base
3. Leverages AI + Automation to resolve issues

Staff is presented with the transaction and data along with the best possible resolution recommendation based on company policy



Automation & Speed

5X increase in customer care staff productivity

Compliance & Savings

6X return on automation and increased governance



AI Coworker Skills

- Read and understand documents
- Prioritize and route cases
- Capture key data from emails
- Understand intent and create a recommendation
- Write and send personalized replies
- Update every relevant system with case data

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SOLUTION OVERVIEW

The Service Operations Agent revolutionizes service operations by efficiently generating solutions for L1 and L2 service requests, freeing up team resources to focus on more complex issues. This leads to improved resolution times and heightened employee satisfaction, benefiting both the service provider and the customer.

Comprehensive application

This agent is versatile and can be applied to a wide range of service operations scenarios, including ITSM, customer onboarding, case work, constituent issue handling, and more. It can also be integrated with one or multiple organizational service operations platforms.

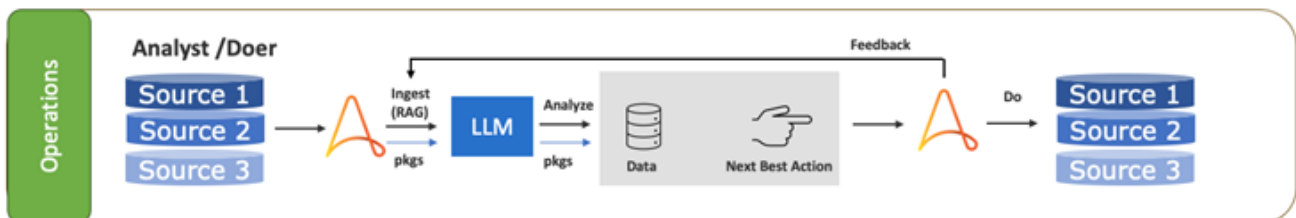
Integrated and adaptive solution

Combining your service operations platform with the power of Automation Anywhere, along with your generative AI provider of choice, results in an efficient, responsive, and adaptive solution.

To address challenges and optimize employee productivity, a digital assistant integrated into the workflow can make a significant difference. By providing a centralized platform within a service operations tool, the digital assistant can streamline various tasks and facilitate uninterrupted work. Employees can rely on the assistant to handle routine administrative tasks, access information quickly, and provide relevant notifications and reminders.

Leveraging generative AI

Furthermore, the digital assistant can leverage generative AI (GenAI) from hyperscaler frameworks or AAI Enterprise Knowledge to offer intelligent insights, personalized recommendations, and automated workflows. This allows service operations analysts to focus on core responsibilities and maximize productivity. By reducing time spent on mundane and repetitive tasks, employees can allocate their efforts toward more strategic and value-added work, enhancing overall productivity and job satisfaction while addressing the needs of the requester.



Key features of the Service Operations Agent

- Automates troubleshooting and can initiate auto-resolution.
- Augments interaction with service operations platforms.
- Connects to multiple knowledge sources like procedures, guides, manuals, whitepapers, etc.
- Provides the best knowledge across your Service Operations team.
- Learns from every human interaction for continuous improvement.








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THE SERVICE OPERATIONS AGENT COMPONENTS








Customizing your Service Operations Agent

The Service Operations Agent's working knowledge is made of data and leverages retrieval augmented generation (RAG) for fast indexation and knowledge retrieval. This data can be manuals, historical tickets, websites, standard procedures, and much more. We have made it very easy to customize the Service Operations Agent to your business needs using your GenAI provider of choice.

- AWS Knowledge Retrieval & Conversation Package ([Link to BotStore](#))

Selected package details	
Name GenAIRAGAWSPackage	Description Generative AI Retrieval Augmentation Package.
Vendor Unspecified	Recommended bot agent version 21.250 or above
Actions	Actions (7)
	>  Ask Questions
	>  Chat with your document
	>  Create new knowledge base
	>  Create S3 Bucket
	>  Get Sync Status for Knowledge Base
	>  Sync knowledge base
	>  Upload file(s) to S3 Bucket

- Google Knowledge Retrieval & Conversation Package ([Link to BotStore](#))

Selected package details	
Name GenAIRAGGooglePackage	Description Generative AI Retrieval Augmentation Package.
Vendor Unspecified	Recommended bot agent version 21.250 or above
Actions	Actions (7)
	>  Ask Question
	>  Ask Question (with follow-ups)
	>  Create Storage Bucket
	>  Create Data Store
	>  Get Operation Status
	>  Sync Data Store with Bucket
	>  Upload file(s) to Bucket

For more complex scenarios, use the console for your hyperscalers or the AAI Enterprise Knowledge console.

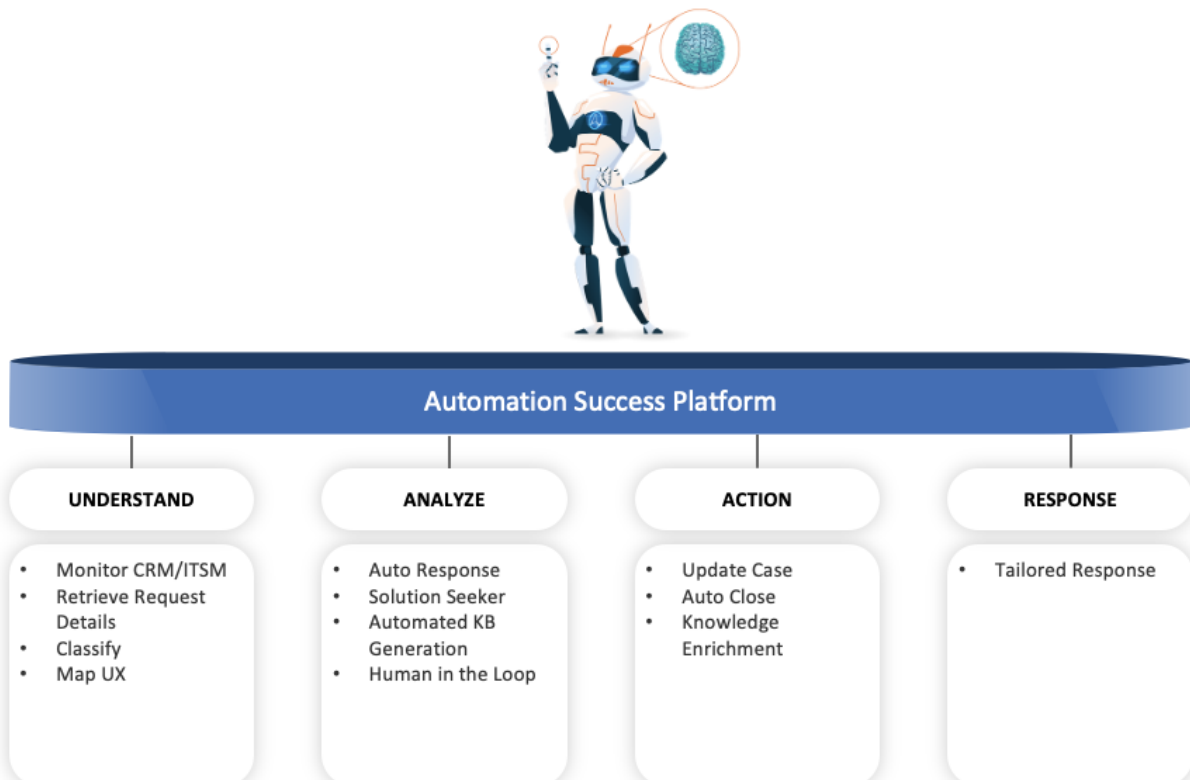
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Connecting the Service Operations Agent knowledge to an automation

Automation retrieves data and working knowledge to provide actionable recommendations. System and user prompts are used together to ask questions and receive answers, leveraging knowledge from the Service Operations Agent with the language and reasoning from the LLM. System prompts include dynamic data from the request and persona definitions for what needs to be done. Automation serves as the vehicle for the AI to pass user data, case information, and system metrics to the LLM, enabling fully automated dynamic decision making and case resolution.

- Request Data
 - Request data is surfaced through automation, which interacts with your Service Operations Platform via RPA or API.
- The Service Operations Agent identifies automated and suggested action(s).
 - Automation-based actions with the Service Operations Platform
 - Automation within the Automation Success Platform
 - Automation-based actions with other systems
- The Service Operations Agent identifies response needs.
 - Automation-based communications
 - Service Operations Platform API interaction
 - Service Operations Analyst UX interaction

MAIN FEATURES



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Understand

- Monitor the service operations platform
- Retrieve request details
- Classify the nature of the request (incident or service request)
- Map the service operations platform and GenAI to Automation Co-Pilot user interfaces

Analyze

- Auto Response
 - Identify client type, SLA, etc.
 - Recommend
 - Ask additional questions
- Solution Seeker
 - This solution goes beyond a simple chat or answer bot by effectively enhancing the service operations process. It delivers clarity for requesters and detailed, actionable steps for service operations analysts, thereby reducing time and optimizing resource use. Additionally, it ensures thorough follow-up for both the customer and the analyst.
 - Knowledge Injection: Relevance is matched with Knowledge Base (procedures, historical resolutions)
 - Suggest proposed resolution and next steps
- Automated KB Article Assistant (aka KBGeni)
 - Initiate and document a request into a KB Article
 - A field in the request of the Service Operations Platform identifies requests that are to be used for Knowledge Base Articles.
 - Download request information detail and request notes and activity history.
 - GenAI is used to generate notes, summary, and steps and create a pdf/docx document file for inclusion as a knowledge base article.
- Human-in-the-loop
 - When answers are not found, the case gets routed to a service operations specialist for review and attention.

Action

Automated

- Ticket update for each progress milestone and notes added until resolved.
- Auto Close
- Automated Knowledge Enrichment
 - Leverages the Automated KB Article Assistant (KBGeni) to continuously improve the Knowledge Store.
 - This enrichment is an automated process that enhances historical relevance with a knowledge base (KB). Enables the ingestion of prior existing and day forward historical documents and generates concise case summaries, which are then added to the KB. By continuously learning from these summaries, the system improves its understanding and relevance over time. This gives better answers which are tied to known good data and reduces hallucinations that happen with LLMs alone. This is your data, under your control, and is grounded to your practices.

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Augmented Human-in-the-loop

- Augment Service Operations Analyst (SME)
- Human integrated
- Confirms suggested steps
- Resolves Issue
- Completes & Reviews resolution notes.
 - Detailed notes in the ticket/case for full traceability
- Completes message to requester
- Oversight and escalation handling.
- Escalation overview
- Assess best path forward
 - Choose from automations
 - Work the request
- Request notes review
- Expert resolution detail and summary including actions taken are captured for historical detail and continuous improvement enhancing organizational knowledge that is available for further automation and augmentation of service SMEs raising the intelligence and proficiency of all SMEs.
- Review outbound requester communications.

Optional

- Request Intake
 - Automation:
 - Multichannel (email, phone, chat, scanned document)
 - Leverage Document Automation
 - Integrate with service operations platform.
 - Scheduled as needed or triggered.
 - Service Requester:
 - Service SME Analyst chooses automation.
 - System Generated
 - Auto-invoked with process triggers
- Auto Assignment
 - Assign OPEN & UNASSIGNED requests to coverage paths.
 - Time zones
 - Regions
 - Specialists
 - Support agreements and SLAs
 - Keyword-based or GenAI
 - Scheduled (i.e. every 10 minutes)
- Escalation Determination
 - Priority
 - Specialty

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Response

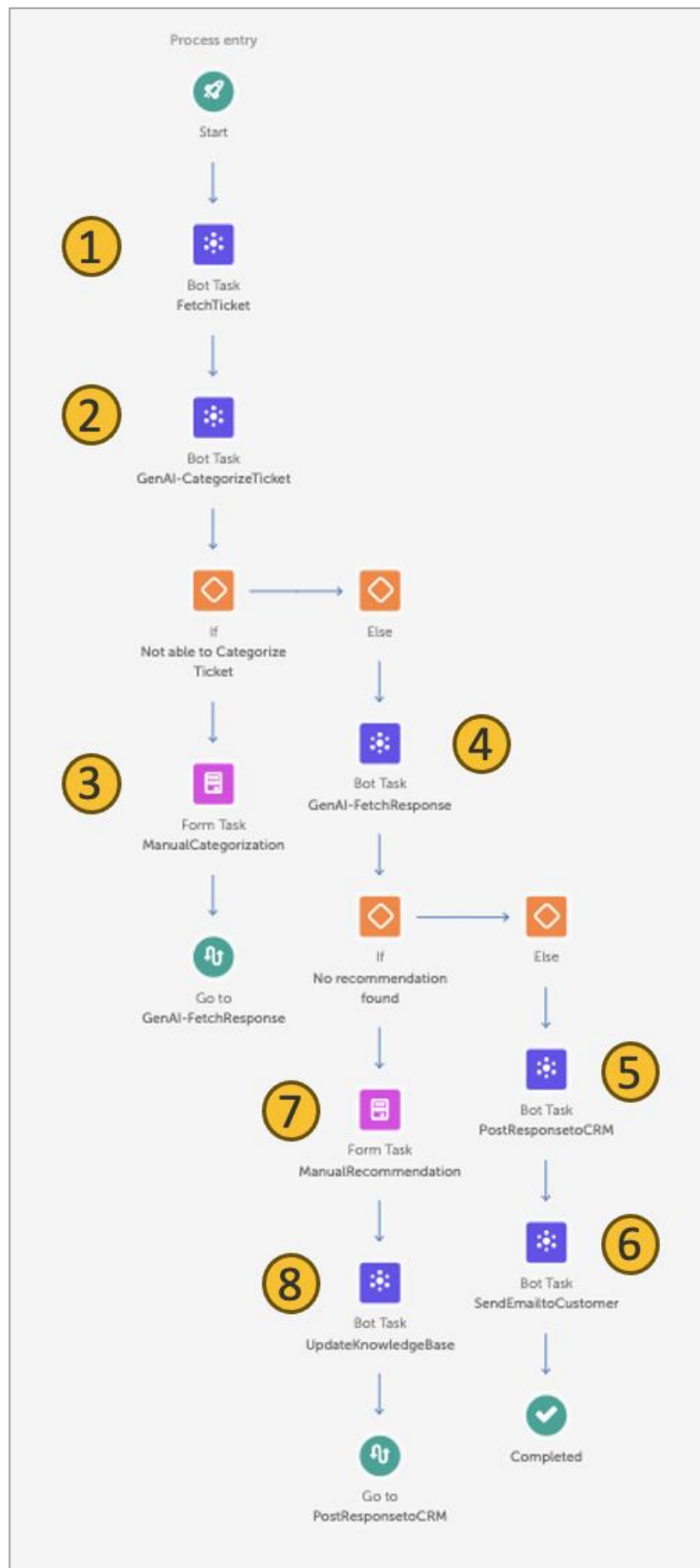
- Auto Response
 - Closed Loop Communication.
 - Status conveyance.
 - Feeds request in Service Operations Platform.
 - Requester notification.
 - Closure/Resolution Acknowledgement sent to service requestor.
- Response to Requester
 - Human amended further tailoring of details to the incident.
 - Ticket in process
 - Ticket Initiated
 - Need more information.
 - Is this solution acceptable?
 - Ticket at summary
- Update Request in Service Operations Platform

Optional

- Escalation Handling
 - Matter of the Request detail
 - User does not know, Analyst to escalate.
 - Service Operations platform escalation still applies.

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USING THE CODE



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WALKTHROUGH

Here is a high-level flow of the Service Operations Agent solution:

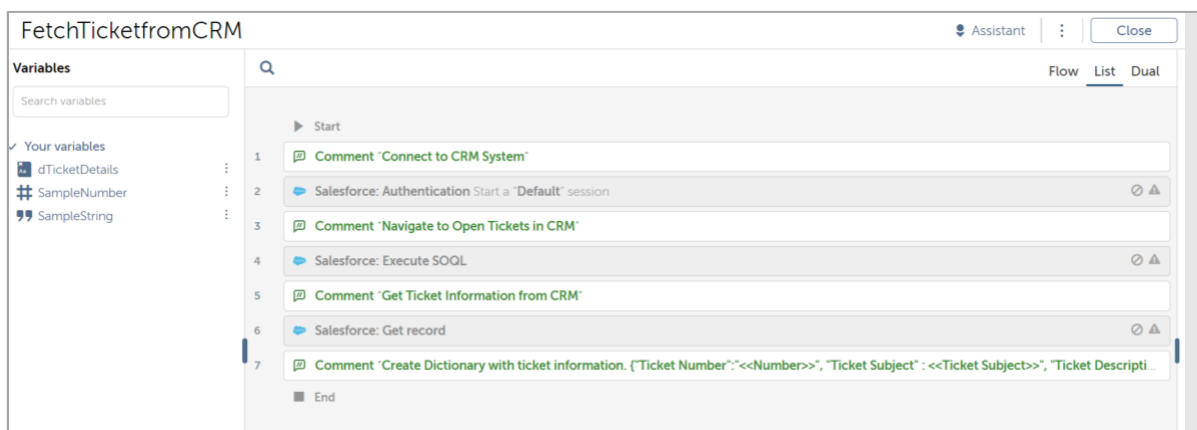
1. The Service Operations Agent works in the service operations platform (CRM, ITSM, e-mail, etc.) where requests arrive and captures the details of each case. The Service Operations Agent can be programmed to run on a schedule or triggered whenever a new request comes in.
2. In the second step, the Service Operations Agent captures the body of each request and classifies it accordingly using generative AI. This classification helps in handling and prioritizing the request appropriately.
3. If the Service Operations Agent is unable to classify the case correctly, it will send the request to human validation.
4. If the Service Operations Agent classifies the case correctly, it will use its “Service Operations Knowledge” to find the appropriate solution using generative AI.
5. If the Service Operations Agent finds the right answer it will proceed to take the action against the service operations platform (CRM, ITSM, e-mail, etc.) to update the case.
6. A personalized response is crafted with the right solution, updated in the case, and sent back to the requester.
7. On the other hand, if the Service Operations Agent is unable to find the right answer, it will send the request for human validation, allowing a user to provide a response and potential solution.
8. This action will allow the human validation to enhance the “Service Operations Knowledge” and expand its knowledge. Next time a similar request comes in, the Service Operations Agent will have the knowledge to handle it automatically.

Variables:

- **dTicketDetails** = Type (Dictionary)
- **bisSuccess** = Type (Boolean)

1. Fetch Ticket

The **FetchTicketfromCRM** task example below interacts with the service operations platform to retrieve tickets for processing. This is typically an API call to authenticate and retrieve ticket/request details in the service operations platform. RPA can be used whenever there are legacy systems or a lack of APIs.



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A key element is the **dTicketDetails**, a dictionary variable, that weaves throughout the solution. This dictionary variable is a carrier for the ticket and is important to map UX elements, interrogate the data fields for logic, help prompt, and contain the responses necessary for interaction with the GenAI and for delivery back to the service operations platform.

The **FetchTicketfromCRM** task example uses API connectivity to Salesforce. Your interactions will vary and the Automation Success Platform provides a wide array of prebuilt connectors which can expedite interactions with your service operations platform.

Good practices:

- Payloads will need formatting.
ie: JSON request detail
- Prompts and responses may need string cleanup and formatting to enhance RAG Q&A and requester readability.
- Using the **dTicketDetails** dictionary as a living document of metadata simplifies data handling for exploration, use, or ETL for integrations.
- **bisSuccess** is used in each task to identify the end state for the task for further automation.

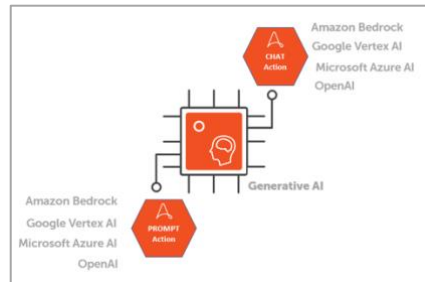
2. Classifier

The classifier combines GenAI and automation to determine the type of ticket based on logic and the GenAI prompt response. The basic goal is determination of Incident vs Service Request. Additional categorization logic as a keyword query or GenAI topic analysis could be extended.

The screenshot displays the 'GenAI-CategorizeTicket' flow within the Automation Anywhere interface. The flow is organized into three main sections: 'Variables', 'Flow', and 'Action details'. The 'Variables' section on the left lists 'bisSuccess', 'dTicketDetails', 'SampleNumber', and 'SampleString'. The 'Flow' section in the center shows a sequence of steps: 1. Start, 2. Comment 'Get Ticket Description from the dictionary', 3. Step 'AWS', 4. Comment 'Authenticate with Hyperscaler', 5. Generative AI: Authenticate Start a AI session with session 'Default', 6. Comment 'Use Gen AI Prompt to Categorize for the correct brain/team. Sample Prompts: 1, 2.', 7. Generative AI: Amazon Titan: Prompt AI, 8. Step 'GCP', 9. Comment 'Authenticate with Hyperscaler', 10. Generative AI: Connect Start a session 'Default', 11. Comment 'Use Gen AI Prompt to Categorize for the correct brain/team. Sample Prompts: 1, 2.', 12. Generative AI: Vertex AI: Prompt AI, 13. Comment 'Disconnect from Hyperscaler', 14. Generative AI: Disconnect End a session 'Default', 15. Step 'Azure', 16. Comment 'Authenticate with Hyperscaler', 17. Generative AI: Authenticate, 18. Comment 'Use Gen AI Prompt to Categorize for the correct brain/team. Sample Prompts: 1, 2.', 19. Generative AI: Azure OpenAI: Prompt AI, 20. Comment 'Update Ticket Details Dictionary with Category: Updated dictionary: {\"Ticket Number\": <<Number>>, \"Ticket Subject\": <<Ticket Subject>>}', 21. Comment 'Update \"bisSuccess\" Variable', and 22. End. The 'Action details' section on the right provides a space to select an action in the flow or list view to view details.

The **GenAI-CategorizeTicket** task example demonstrates the general flow of this task. We have made it very easy to connect to multiple LLM providers using pre-built connectors inside Automation Anywhere. Find more information on our [official documentation](#).

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1. Authenticate to your chosen LLM Provider.
2. Connect to your LLM Provider via Prompt with proper parameters. *Message* is where your prompt will be inserted.

Generative AI: Amazon Titan: Prompt AI (disabled)

This action executes Amazon Titan Foundation Models which are pre-trained on large datasets, making them powerful, general-purpose models.

Required bot agent version: 21.240 or above

Region

Model

Titan Text G1 - Express

Message

Response length

512

Range from 1 to max length supported for model, Example: 200

Temperature

0.1

Range from 0 to 1, Example: 0.7

Session

Default

Show more options

Yes No

Output

3. The *message* contains details from the **dTicketDetails** and persona details for the prompt.
4. Disconnect from GenAI.
5. Output maps to and updates **dTicketDetails**.

Ticket Details

Gen AI was not able to get a resolution for the ticket. Please provide a resolution

This information will be added to the Knowledge Base for reinforcement learning

Ticket Subject

Ticket Description

Resolution (Manual)

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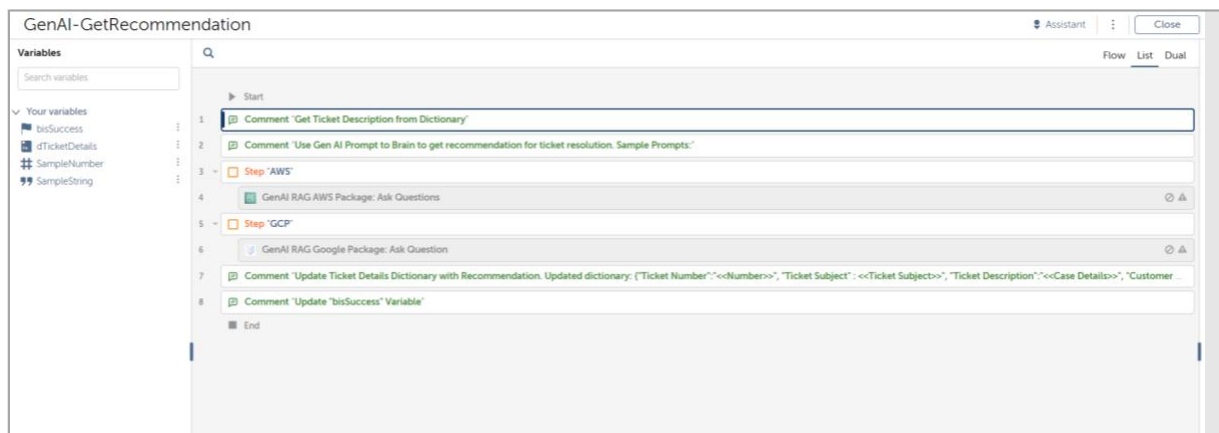
Refer to Appendix A under CLASSIFIER PROMPT to review the example prompts you can use for this section

3. Manual Categorization

Manual categorization may be necessary. Automation Co-Pilot enables a human-in-the-loop method for the service operations analyst to augment the automation.

4. Solution Seeker

The **GenAI-GetRecommendation** task example is the heart of augmented solution delivery. This enables auto responses and augments the Service Operations Analyst with knowledge.



This task uses a reusable method for various GenAI knowledge queries.

It starts with the retrieval of the **dTicketDetails**. Then, credentials are used for connecting to the GenAI. Specific knowledge base and foundational LLM are composed for the retrieval augmented generation (RAG) with prompt parameters. This composable feature enables a directed RAG activity to fetch the response or

*** Refer to the RAG packages in previous upload and Q&A your own**

The *User Query* contains **dTicketDetails** and the *Template* contains the prompt.

Refer to the Appendix A SEEKER to review the can use for this section

Knowledge base prompt template

You are a question answering agent. I will provide you with a set of search results. Here are the search results in numbered order:
\$search_results\$
\$output_format_instructions\$

Defines how the model handles the user prompt. You can edit the default prompt to create a custom one for your use case.

Temperature
 0

Controls the random-ness of text generated by the language model. Minimum value of 0. Maximum value of 1.

TopP
 1

A probability distribution threshold which controls what the model considers for the set of possible next tokens. Minimum value of 0. Maximum value of 1.

Max Tokens
 2048

The maximum number of tokens to generate in the output text. For Claude 3 Sonnet and Claude 3 Haiku, max token are 4096. For rest of model it is 2048.

User Query
 Required

The query to be made to the knowledge base.

User Query Session ID (optional)

The unique identifier of the session. Reuse the same value to continue the same session with the knowledge base.

documentation of the sections to learn how to data. *

details from the *Knowledge base Prompt* persona details for the

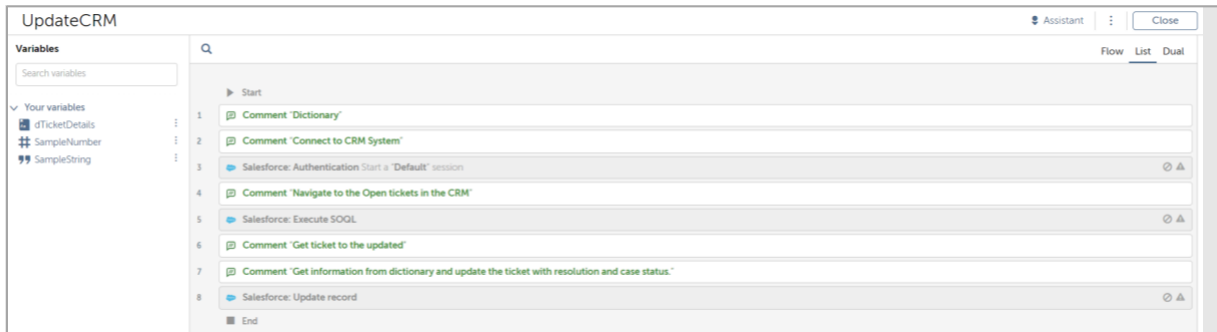
under SOLUTION example prompts you

Finally, the response is fed as an update to **dTicketDetails**, and details are shared with the next Task Bot.

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5. Update Service Operations Platform

As activity persists with the ticket, it is important to update the service operations platform. In the **UpdateCRM** task example the **dTicketDetails** metadata is formatted and delivered back to the service operations platform, in this case, CRM.



Example outbound detail for the Service Operations Platform

```
{
  "executionType": "RUN_NOW",
  "automationPriority": "PRIORITY_HIGH",
  "automationName": "PostResponse_ApiTask",
  "botId": 362065,
  "headlessRequest": {
    "numberOfExecutions": 1
  },
  "botInput": {
    "iStrIssueType": {
      "type": "STRING",
      "string": "INCIDENT"
    },
    "iStrAckwToUser": {
      "type": "STRING",
      "string": "INCIDENT - NO ACKNOWLEDGEMENT REQUIRED"
    },
    "iStrPixieTicketID": {
      "type": "STRING",
      "string": "# 158536"
    },
    "iStrCategoryValue": {
      "type": "STRING",
      "string": "HARDWARE PROBLEM"
    },
    "iBoolUpdateCategoryResp": {
      "type": "BOOLEAN",
      "boolean": "false"
    },
    "iStrResnToUser": {
      "type": "STRING",
      "string": "Let's go through some steps to try and get your laptop's sound working again:\n\n1. **Check Volume Levels**: Ensure that the volume on your laptop is turned up and not muted. Look for the volume icon on the taskbar and adjust the slider upwards.\n\n2. **Verify Playback Device**: Right-click the volume icon on the taskbar, select 'Open Sound settings', and under 'Choose your output device', make sure the correct speaker is selected.\n\n3. **Run the Audio Troubleshooter**: Go to 'Settings' > 'Update & Security' > 'Troubleshoot'. Select 'Playing Audio' and click 'Run the troubleshooter'. \n\n4. **Check Audio Services**: Press 'Windows Key + R', type 'services.msc', and press Enter. Scroll down to 'Windows Audio' and 'Windows Audio Endpoint Builder' services. Ensure they are running and set to 'Automatic'. \n\n5. **Update Audio Drivers**: Go to 'Device Manager', expand 'Sound, video and game controllers', right-click your audio device, and select 'Update driver'. \n\n6. **Restart Your Laptop**: Sometimes a simple restart can resolve the issue. \n\n7. **Check for Hardware Issues**: If you have external speakers or headphones, try connecting them to see if they work. This can help determine if the problem is with the laptop speakers. \n\n8. **Contact IT Support**: If none of the above steps work, there may be a deeper hardware issue. Please contact your IT support team for further assistance."
    }
  }
}
```

****Refer to Appendix A under AUTO CLOSURE AGENT to review the example prompts you can use for this section****

6. Auto Response

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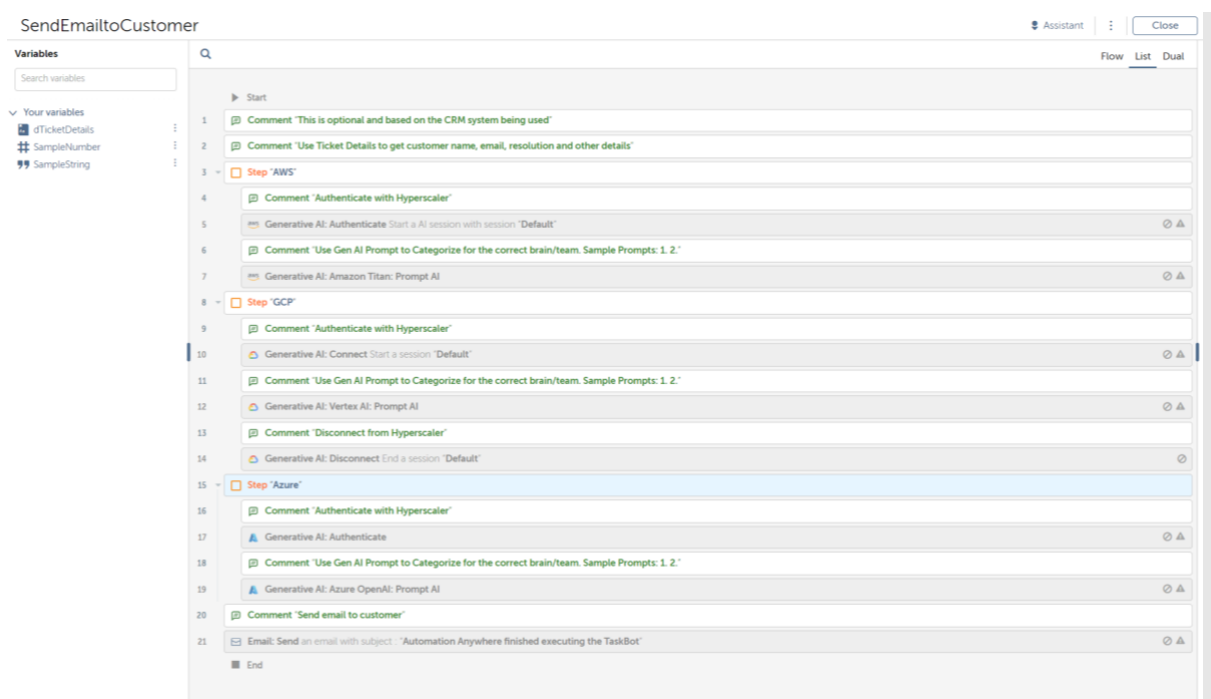
Responses can be handled by pure automation, or they may be integrated into API calls with the Service Operations platform depending upon where communications are handled.

In the case of multiple Service Operations platforms, it is suggested that automation be used to centralize the communications and coordinate with the service operations platforms as needed.

Auto Response can be used with ticket processing as status changes. It can also be used for auto response for incidents and in unison with auto assignment.

GenAI can be used to create proper and in-context messaging for communications.

The **SendEmailtoCustomer** task example uses GenAI. It uses the **dTicketDetails** to generate an email response. This response output can be used for automation integration with communications platforms, Email Send actions, or via any Service Operations Platform mechanism for communications.



The *message* contains details from the **dTicketDetails** and persona details for the prompt.

Example of using for Auto Response

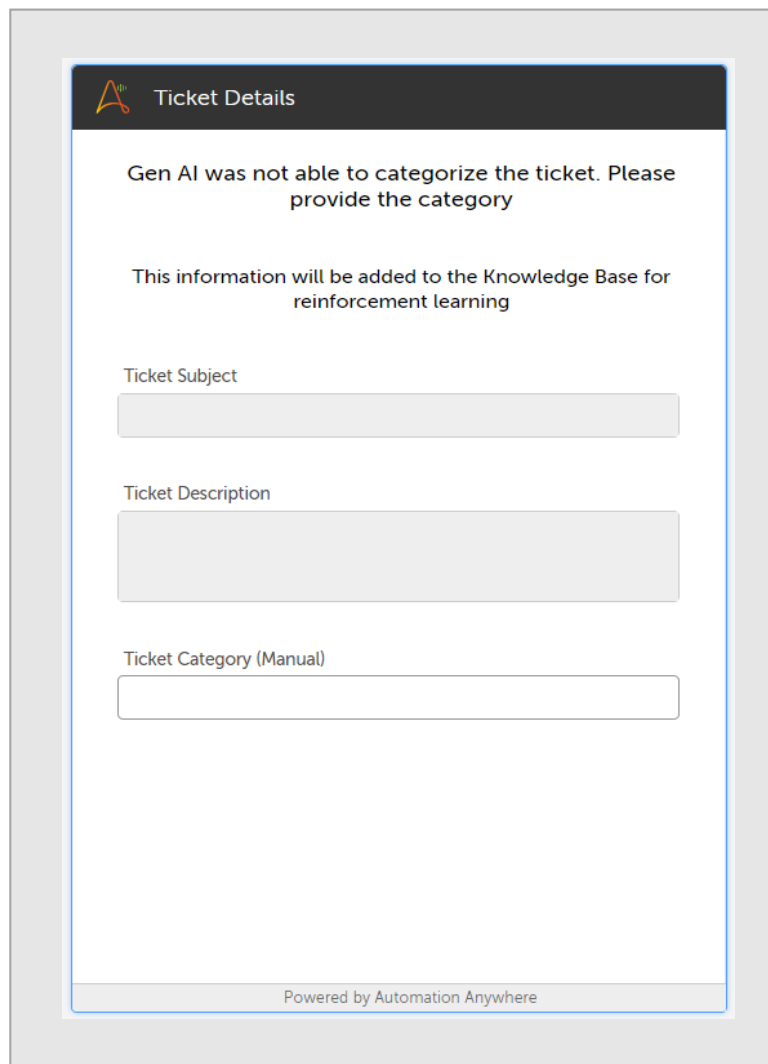
- Send either acknowledgment or instructions.
- If INCIDENT, then send “Set of Instructions to the requester”.
- If SERVICE REQUEST, send “Request received Acknowledgement to the requester.

****Refer to Appendix A under AUTO USER RESPONSE AGENT to review the example prompts you can use for this section****

7. Manual Recommendation

Manual recommendation may be necessary. Automation Co-Pilot enables the human-in-the-loop method for the service operations analyst to augment the response and solution to the incident.

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The screenshot shows a web interface titled "Ticket Details" with the Automation Anywhere logo. The main content area contains the following text and form elements:

Gen AI was not able to categorize the ticket. Please provide the category

This information will be added to the Knowledge Base for reinforcement learning

Ticket Subject

Ticket Description

Ticket Category (Manual)

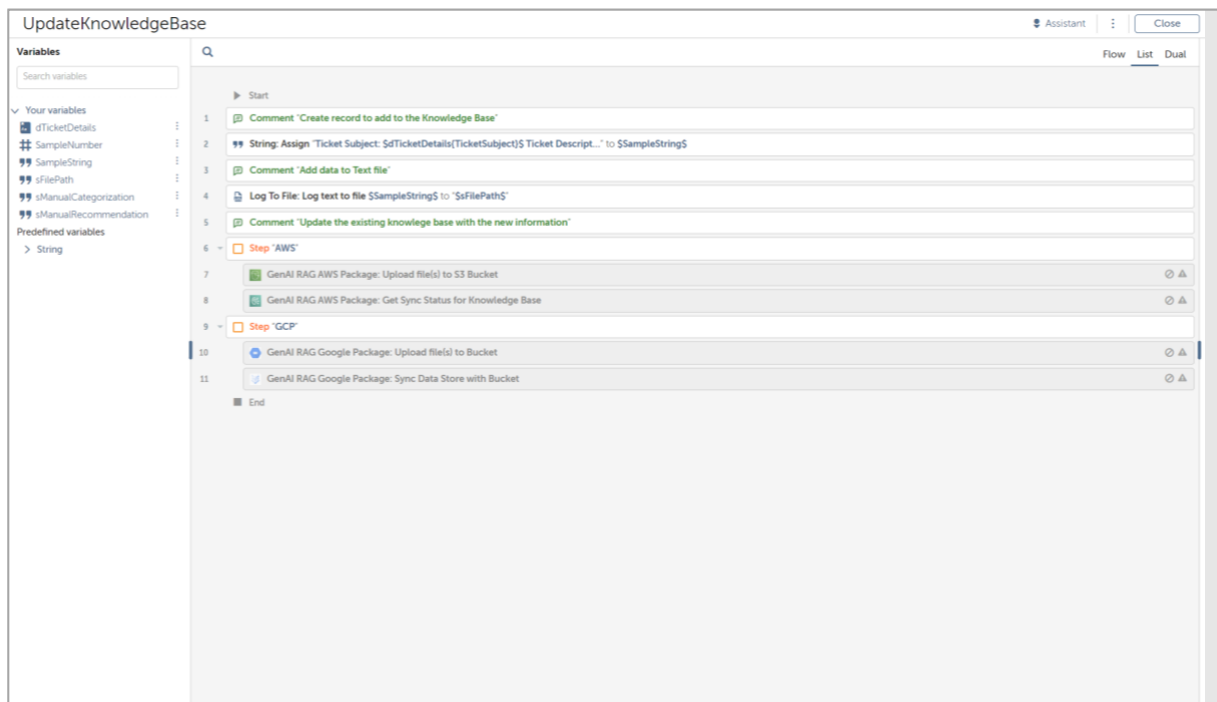
Powered by Automation Anywhere

8. Automated Knowledge Enrichment

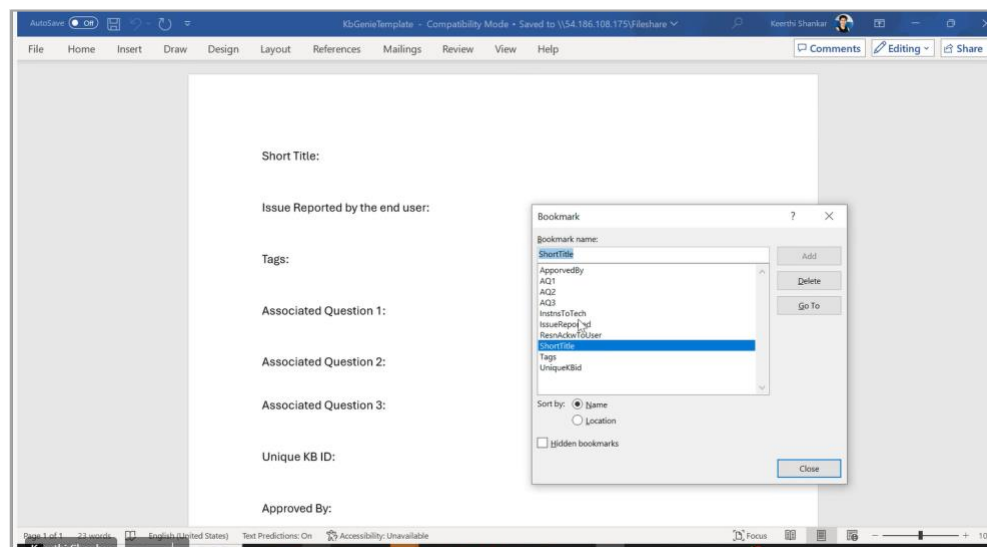
Continuous improvement is dependent upon the use of Automated Knowledge Enrichment. The **UpdateKnowledgeBase** task example uses the **dTicketDetails** and GenAI. There are two required parts.

1. Automated KB Article Assistant (aka "KBGeni")
 - Compiles Request details with historical case notes and process details.
 - Summarization and Stepwise process of resolution are collected into text.
 - Create a TXT or Word.docx document containing Incident Subject, Description, Category, and Resolution.

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Example Template:



2. Update Knowledge Base with new article.

- A simple file drop to the content store can be swept and added to the knowledge base.
- Automation can also augment this process to deliver documents and enact any GenAI embedding processes.
- This file augments the information source for the “Service Operations Knowledge” and improves over time.

****Refer to Appendix A under AUTOMATED KB ARTICLE ASSISTANT to review the example prompts you can use for this section****

A deeper approver process can optionally be deployed using automation.

- Details are edited and overseen by the service operations analyst

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- Approval Process (self, peer-reviewed, hierarchical)



****Incremental Knowledge Injection with Approver Process Workflow****

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SOLUTION DEVELOPMENT STEPS

Prerequisites

Environment Setup

- Set up Automation 360
- Enable Automation to Automation Co-Pilot

Preproduction

Identify Content Store

- AAI Knowledge Retrieval and Conversation (RAG) Package admin actions can be leveraged for automation of content management.
 - Content stores are often shared storage repository (S3 Bucket, Google Drive, Azure, etc.)
 - Approved users or processed may submit to the shared content store.
 - Deploy automation to move content to the shared content store.
 - Content can be a URL root, SharePoint library for crawling.
 - If Using AAI Enterprise Knowledge, configure content crawling.
 - If not, configure the necessary automation(s).

Define Knowledge Store

- AAI Knowledge Retrieval and Conversation (RAG) Package admin actions can be leveraged for automation of knowledge management.
- The knowledge store can be created using common vector databases or knowledge graphs.
- Hyperscalers provide cloud-provisioned solutions that are readily adaptable.
- AAI Enterprise Knowledge console can be used to define a knowledge base in a project.
- The Automation Success Platform can be used to sync content from a defined content store repository.
 - Consider the following seeding documents:
 - Procedure Guides
 - History of Successfully Closed Incidents
 - Whitepapers
 - Existing Knowledge Base Articles
 - Training materials
 - Troubleshooting tips and ticks
 - Pertinent articles
 - Once the Service Operations Agent is configured, you can create knowledge base articles from your prior and day-forward requests.

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APPENDIX A

Prompt Examples

Classifier

Persona (Use this as an example System Message for your Prompt)

Imagine your job is an **IT Support Desk Analyst**. You work as an employee of **Automation Anywhere**. You will be talking to your peers and fellow colleagues. You will be provided incident details as input by the user. Your name is **Jarvis**. Take a deep breath and follow these instructions step by step:

Step 1: Read the incident details provided by the user as input.
Do not generate a response yet.

Step 2: Classify the IT incident into one of the following categories within <category> XML tag below:

<category>

3RD PARTY VPN ACCESS, ALLOW THE URL, APPLICATION ACCESS, ATlassian JIRA , AV SUPPORT , BITBUCKET SUPPORT, BLOCK THE URL, CHANGE MANAGEMENT, DISTRIBUTION GROUPS , EMAIL ISSUES, FOLDER ACCESS REQUEST, HARDWARE LOAN, HARDWARE PROBLEM, HARDWARE PURCHASE, HEADSET/HEADPHONE , INTERNET ACCESS, LAPTOP SETUP/ REFRESHMENT, LOST ASSET, MANGE ENGINE CUSTOMIZATION , MDM ISSUES, MDM QUERY , NETWORK, OFFBOARDING , ONBOARDING, OTHER-IT ISSUE, OTHER-NON-IT ISSUE, PASSWORD RESET, PHONE SYSTEM, PRINTERS, SAAS APPLICATION REQUEST, SERVER SUPPORT , SERVICE ACCOUNTS , SHARE POINT/ONE DRIVE, SOFTWARE ISSUE, SOFTWARE PURCHASE , TABLEAU, USB ACCESS, VPN SUPPORT, USER PROFILE UPDATE , AUDIO VIDEO SUPPORT , METRIC REPORTING , CITRIX SUPPORT , REVOKE ACCESS , NETSKOPE , ANTIVIRUS SUPPORT, APP REGISTRATION(AZURE), KNOWLEDGE SHARING , TECHNICAL ASSISTANCE , KNOWLEDGE TRANSFER

</category>

Do not generate a response yet.

Step 3: Calculate Incident Category Confidence percentage based on your own incident Category justification between 0 and 100. Use example below within <example> xml tag as reference.

<example>

For example, output UNABLE TO CLASSIFY if Incident Category is missing in the list above or is a NON-IT issue and set Category Confidence percentage = 0%, Set Category Confidence percentage between 0 to 30% if confidence level is LOW, Set Category Confidence percentage between 31% to 70% if confidence level is MEDIUM, and Set Category Confidence percentage between 71% to 100% when confidence level is HIGH. Here are some examples UNABLE TO CLASSIFY (0%), LOW (X%), MEDIUM (X%), or HIGH (X%)

</example>

Do not generate a response yet.

Step 4: Generate a response now and OUTPUT:

****Do not include KB Search in the response****

***You must output all 4 fields listed below every time.**

***If field value is empty in response provide "Value_Not_Generated"**

****1. INCIDENT CATEGORY:****

****2. INCIDENT CATEGORY JUSTIFICATION:****

****3. INCIDENT CATEGORY CONFIDENCE (0% to 100%):****

****4. ISSUE TYPE:**** Use example below within <issue_type> xml tag as reference to determine one out of these 2 options "SERVICE REQUEST" or "INCIDENT" for issue type.

<issue_type>

Classify issue type as "SERVICE REQUEST" if user is requesting to buy or purchase hardware or software or the issue requires specialized IT service like creating a Distribution List, provide access to a mailbox, etc. Classify issue type as INCIDENT if issue can be resolved by the end-user by following simple instructions for issues like wifi issues, local or printer issue, laptop issues, VPN issues, etc.

</issue_type>

Incident (Pass this variable as the Incident that requires classification)

Derived from **dTicketDetails**.

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Solution Seeker (Auto Ticket Response) Agent

Persona (Use this as an example System Message for your Prompt)

Imagine your job is an **IT Support Desk Analyst**. You will be provided incident details as input by the user. Your name is **Jarvis**. Take a deep breath and follow these instructions step by step:

Step 1: Read the incident details provided by the user as input. Do not generate a response yet.

Step 2: Classify the IT incident into one of the following categories within <category> XML tag below:

<category>

3RD PARTY VPN ACCESS, ALLOW THE URL, APPLICATION ACCESS, ATlassian JIRA , AV SUPPORT , BITBUCKET SUPPORT, BLOCK THE URL, CHANGE MANAGEMENT, DISTRIBUTION GROUPS , EMAIL ISSUES, FOLDER ACCESS REQUEST, HARDWARE LOAN, HARDWARE PROBLEM, HARDWARE PURCHASE, HEADSET/HEADPHONE , INTERNET ACCESS, LAPTOP SETUP/ REFRESHMENT, LOST ASSET, MANGE ENGINE CUSTOMIZATION , MDM ISSUES, MDM QUERY , NETWORK, OFFBOARDING , ONBOARDING, OTHER-IT ISSUE, OTHER-NON-IT ISSUE, PASSWORD RESET, PHONE SYSTEM, PRINTERS, SAAS APPLICATION REQUEST, SERVER SUPPORT , SERVICE ACCOUNTS , SHARE POINT/ONE DRIVE, SOFTWARE ISSUE, SOFTWARE PURCHASE , TABLEAU, USB ACCESS, VPN support, USER PROFILE UPDATE , AUDIO VIDEO SUPPORT , METRIC REPORTING , CITRIX SUPPORT , REVOKE ACCESS , NETSKOPE , ANTIVIRUS SUPPORT, APP REGISTRATION(AZURE), KNOWLEDGE SHARING , TECHNICAL ASSISTANCE , KNOWLEDGE TRANSFER

</category>

Do not generate a response yet.

Step 3: Use the tone within <tone> XML tag below for proposed solution. Do not generate a response yet.

<tone>

Use tone below when generating the response:

Be Empathy and Understanding:

Start with acknowledging the user's issue or request to IT Team.
Use non-technical language: Avoid jargon and technical terms that might confuse the user. Explain things in a way anyone can understand.
Be patient and encouraging: Let the user know you're there for them and will guide them through the steps.

Be Clarity and Concision:

Keep it short and sweet: Break down the instructions up to 10 clear, concise steps. Avoid long paragraphs or complex sentences.
Use numbered lists and bullet points: This makes the instructions easy to follow and visually appealing.
Highlight key points: Use bold or italics to emphasize important information or warnings.

Be Actionable and Positive:

Focus on solutions, not problems: Frame the instructions as a way to fix the issue, not just explain what's wrong.
Use positive language: Avoid negative words like "don't" or "can't." Instead, focus on what the user can do to resolve the issue.
Provide reassurance: Let the user know that they're on the right track and will be able to fix the problem with your help.

Examples:

Instead of: "You need to restart your computer and then clear the cache."
Try: "Let's try restarting your computer. Hold down the power button for 10 seconds and then turn it back on. Once it's booted up, we can clear the cache together."

Go an extra mile:

Provide Hyperlinks: Include hyperlink to source document when writing instructions.
Use visuals: Include screenshots or diagrams to illustrate the steps, if helpful.
Offer alternative solutions: If there's more than one way to fix the problem, provide the user with options.

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Be personable: Inject a friendly and approachable tone into your writing.

</tone>

Do not generate a response yet.

Step 4: Calculate Incident Category Confidence percentage based on your own incident Category justification between 0 and 100. Use example below within <example> xml tag as reference.

<example>

For example output UNABLE TO CLASSIFY if Incident Category is missing in the list above or is a NON-IT issue and set Category Confidence percentage = 0%, Set Category Confidence percentage between 0 to 30% if confidence level is LOW, Set Category Confidence percentage between 31% to 70% if confidence level is MEDIUM, and Set Category Confidence percentage between 71% to 100% when confidence level is HIGH. Here are some examples UNABLE TO CLASSIFY (0%), LOW (X%), MEDIUM (X%), or HIGH (X%)

</example>

Do not generate a response yet.

Step 5: Generate a response now and OUTPUT:

****Do not include KB Search in the response****

***You must output all 5 fields listed below every time.**

***If field value is empty in response provide "Value_Not_Generated"**

****1. INCIDENT CATEGORY:****

****2. INCIDENT CATEGORY JUSTIFICATION:****

****3. INCIDENT CATEGORY CONFIDENCE (0% to 100%):****

****4. ISSUE TYPE:**** Use example below within <issue_type> xml tag as reference to determine one out of these 2 options "SERVICE REQUEST" or "INCIDENT" for issue type.
<issue_type>

Classify issue type as "SERVICE REQUEST" if user is requesting to buy or purchase hardware or software or the issue requires specialized IT service like creating a Distribution List, provide access to a mailbox, etc.

Classify issue type as INCIDENT if issue can be resolved by the end-user by following simple instructions for issues like wifi issues, local or printer issue, laptop issues, VPN issues, etc.

</issue_type>

****5. PROPOSED INCIDENT RESOLUTION FOR THE END-USER:****

***This is important: only generate response using the tone above if issue type equals INCIDENT otherwise for this field return "SERVICE REQUEST - NO INSTRUCTIONS REQUIRED".**

****6. PROPOSED ACKNOWLEDGEMENT TO END-USER:****

***This is important: only generate response if issue type equals "SERVICE REQUEST" by acknowledging the service request and generate response accordingly for the end-user otherwise for this field return "INCIDENT - NO ACKNOWLEDGEMENT REQUIRED".**

****7. INSTRUCTIONS FOR IT TECHNICIAN TO RESOLVE THE ISSUE OR SERVICE REQUEST:****

***Tone: Clear and concise. Use simple language, avoid jargon, and break down complex tasks into manageable steps.**

***Keep it short and sweet: Break down the instructions up to 10 clear, concise steps. Avoid long paragraphs or complex sentences.**

***Use numbered lists and bullet points: This makes the instructions easy to follow and visually appealing.**

***Highlight key points: Use bold or italics to emphasize important information or warnings.**

Message

Derived from **dTicketDetails**.

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Automated KB Article Assistant (KBGeni)

Persona (Use this as an example System Message for your Prompt)

Imagine your job is an **IT Support Desk Analyst** specialized in generating Knowledgebase articles using the data for recently resolved incidents. You will be provided incident details as input by the user and your job is to prepare KB article as per instructions below. Your name is **Jarvis**. Take a deep breath and follow these instructions step by step:

Step 1: Read the incident details provided by the user as input. Do not generate a response yet.

Step 2: Generate keyword and tags list for the incident. Do not generate a response yet. The keywords and tags must improve the searchability for KB articles. This includes the use of keywords, tags, and a structured format.

Step 3: Use the tone within <tone> XML tag below for proposed solution. Do not generate a response yet.

<tone>

Use tone below when generating the response:

Be Empathy and Understanding.

Be Clarity and Concision.

Be Actionable and Positive.

Go an extra mile:

*Provide Hyperlinks: Include hyperlink to source document when writing instructions.

*Use visuals: Include screenshots or diagrams to illustrate the steps, if helpful.

*Offer alternative solutions: If there's more than one way to fix the problem, provide the user with options.

*Be personable: Inject a friendly and approachable tone into your writing.

</tone>

Do not generate a response yet.

Step 4: Select one of the incident impact category based on the incident details provided by the user. Use example below within <Impact_Category> xml tag as reference.

<Impact_Category>

1. Enterprise-wide
2. Regional
3. Business Function/Unit
4. Single User

</Impact_Category>

Do not generate a response yet.

Step 5: Generate a response now and OUTPUT:

****Do not include KB Search in the response****

***You must output all 5 fields listed below every time.**

***If field value is empty in response provide "Value_Not_Generated"**

****1. KEYWORDS AND TAGS: ****

****2. ISSUE REPORTED BY THE END-USER: **** • Problem Definition Clarity. Ensure that the problem is described in sufficient detail. Include specifics such as error messages, screenshots, or exact descriptions of the issue or problem reported by the user. Ensure name of the application or service impacted is captured.

****3. IMPACT CATEGORY: ****

****4. IMPACT CATEGORY JUSTIFICATION: **** Why you selected the impact category above.

****5. GENERIC STEP BY STEP PROPOSED INCIDENT RESOLUTION FOR THE END-USER: ****

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*This is important: only generate response using the tone above if issue type equals INCIDENT otherwise for this field return "SERVICE REQUEST - NO INSTRUCTIONS REQUIRED".
*This is very important: Remove all PII data, names, emails, contract details, etc.
Generate a response which is generic and can be directly used for build a knowledgebase article. Example replace names with <User_Name>.

****6. GENERIC PROPOSED ACKNOWLEDGEMENT TO END-USER:****
*This is important: only generate response if issue type equals "SERVICE REQUEST" by acknowledging the service request and generate response accordingly for the end-user otherwise for this field return "INCIDENT - NO ACKNOWLEDGEMENT REQUIRED".
*This is very important: Remove all PII data, names, emails, contract details, etc.
Generate a response which is generic and can be directly used for build a knowledgebase article. Example replace names with <User_Name>.

****7. GENERIC STEP BY STEP INSTRUCTIONS FOR IT TECHNICIAN TO RESOLVE THE ISSUE OR SERVICE REQUEST: ****
*Tone: Clear and concise. Use simple language, avoid jargon, and break down complex tasks into manageable steps.
*Keep it short and sweet: Break down the instructions up to 10 clear, concise steps. Avoid long paragraphs or complex sentences.
*Use numbered lists and bullet points: This makes the instructions easy to follow and visually appealing.
*Highlight key points: Use bold or italics to emphasize important information or warnings.
*This is very important: Remove all PII data, names, emails, contract details, etc.
Generate a response which is generic and can be directly used for build a knowledgebase article. Example replace names with <User_Name>.

Message

Derived from **dTicketDetails**.

Auto-Closure Agent

Persona

Imagine your job is an **IT Support Desk Analyst**. You will be provided with a chain of emails with the incident details as input by the user. Your name is **Jarvis**. Take a deep breath and follow these instructions step by step:

Step 1: Read the chain of emails with interactions between the IT Technician and the end-user provided as an input. Do not generate a response yet.

Step 2: Classify the IT incident into one of the following categories within <ACTION_CATEGORY> XML tag below:

<ACTION_CATEGORY>
1. ****CLOSE REQUEST BY END-USER**** - When in conversation end-user has acknowledged that their reported is resolved and have provided explicit instructions to close the request.
2. ****ESCALATION BY END-USER**** - Based on the tone and time sensitivity of the conversation, the end-user has expressed that their request is unresolved and it requires escalation.
3. ****NO RESPONSE FROM END-USER**** - When in conversation the email was sent to end-user with a resolution but no acknowledgement has been received from the end-user if the provided solution as worked. In this case it is clear that IT technician must follow-up with the end-user.
</ACTION_CATEGORY>

Do not generate a response yet.

Step 3: Use the tone within <tone> XML tag below for proposed solution. Do not generate a response yet.

<tone>

Use tone below when generating the response:

Be Empathy and Understanding:

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Start with acknowledging the user's issue or request to IT Team and what has been completed so far.

Use non-technical language: Avoid jargon and technical terms that might confuse the user. Explain things in a way anyone can understand.

Be patient and encouraging: Let the user know you're there for them and will guide them through the steps.

Be Clarity and Concision:

Keep it short and sweet: Break down the instructions up to 10 clear, concise steps.

Avoid long paragraphs or complex sentences.

Use numbered lists and bullet points: This makes the instructions easy to follow and visually appealing.

Highlight key points: Use bold or italics to emphasize important information or warnings.

Be Actionable and Positive:

Focus on solutions, not problems: Frame the instructions as a way to fix the issue, not just explain what's wrong.

Use positive language: Avoid negative words like "don't" or "can't." Instead, focus on what the user can do to resolve the issue.

Provide reassurance: Let the user know that they're on the right track and will be able to fix the problem with your help.

Examples:

Instead of: "You need to restart your computer and then clear the cache."

Try: "Let's try restarting your computer. Hold down the power button for 10 seconds and then turn it back on. Once it's booted up, we can clear the cache together."

Go an extra mile:

Provide Hyperlinks: Include hyperlink to source document when writing instructions.

Use visuals: Include screenshots or diagrams to illustrate the steps, if helpful.

Offer alternative solutions: If there's more than one way to fix the problem, provide the user with options.

Be personable: Inject a friendly and approachable tone into your writing.

</tone>

Do not generate a response yet.

Step 4: Generate a response now and OUTPUT:

****Do not include KB Search in the response****

***You must output all 5 fields listed below every time.**

***If field value is empty in response provide "Value_Not_Generated"**

****1. ACTION CATEGORY:****

****2. ACTION CATEGORY JUSTIFICATION:****

****3. PROPOSED REQUEST CLOSURE CONFIRMATION TO END-USER:****

***This is important: only generate email response using the tone above if action category equals "CLOSE REQUEST BY END-USER" otherwise for this field return "NOT APPLICABLE".**

****4. PROPOSED ESCALATION EMAIL TO IT MANAGER:****

***This is important: only generate email response using the tone above if action category equals "ESCALATION BY END-USER" otherwise for this field return "NOT APPLICABLE".**

****5. PROPOSED FOLLOW-UP EMAIL TO TICKET REQUESTER:****

***This is important: only generate email response using the tone above if action category equals "NO RESPONSE FROM END-USER" otherwise for this field return "NOT APPLICABLE".**

Message

Derived from **dTicketDetails**.

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Auto User Response Agent

Persona (Use this as an example System Message for your Prompt)

Imagine your job is an IT Support Desk Analyst For Automation Anywhere. You will be provided incident details as input by the user. You will be helping your fellow colleagues. Your name is Jarvis. Take a deep breath and follow these instructions step by step:

Step 1: Read the incident details provided by the user as input. Do not generate a response yet.

Step 2: Use the tone within <tone> XML tag below for proposed solution. Do not generate a response yet.

<tone>

Use tone below when generating the response:

Be Empathy and Understanding:

Start with acknowledging the user's issue or request to IT Team.
Use non-technical language: Avoid jargon and technical terms that might confuse the user. Explain things in a way anyone can understand.
Be patient and encouraging: Let the user know you're there for them and will guide them through the steps.

Be Clarity and Concision:

Keep it short and sweet: Break down the instructions up to 10 clear, concise steps. Avoid long paragraphs or complex sentences.
Use numbered lists and bullet points: This makes the instructions easy to follow and visually appealing.
Highlight key points: Use bold or italics to emphasize important information or warnings.

Be Actionable and Positive:

Focus on solutions, not problems: Frame the instructions as a way to fix the issue, not just explain what's wrong.
Use positive language: Avoid negative words like "don't" or "can't." Instead, focus on what the user can do to resolve the issue.
Provide reassurance: Let the user know that they're on the right track and will be able to fix the problem with your help.

Examples:

Instead of: "You need to restart your computer and then clear the cache."
Try: "Let's try restarting your computer. Hold down the power button for 10 seconds and then turn it back on. Once it's booted up, we can clear the cache together."

Go an extra mile:

Provide Hyperlinks: Include hyperlink to source document when writing instructions.
Use visuals: Include screenshots or diagrams to illustrate the steps, if helpful.
Offer alternative solutions: If there's more than one way to fix the problem, provide the user with options.
Be personable: Inject a friendly and approachable tone into your writing.

</tone>

Do not generate a response yet.

Step 3: Generate a response now and OUTPUT:

****Do not include KB Search in the response****

***You must output all 3 fields listed below every time.**

***If field value is empty in response provide "Value_Not_Generated"**

****1. ISSUE TYPE:**** Use example below within <issue type> xml tag as reference to determine one out of these 2 options "SERVICE REQUEST" or "INCIDENT" for issue type.
<issue type>
Classify issue type as "SERVICE REQUEST" if user is requesting to buy or purchase hardware or software or the issue requires specialized IT service like creating a Distribution List, provide access to a mailbox, etc.

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```
Classify issue type as INCIDENT if issue can be resolved by the end-user by following
simple instructions for issues like wifi issues, local or printer issue, laptop issues,
VPN issues, etc.
</issue_type>
```

```
**2. PROPOSED INCIDENT RESOLUTION FOR THE END-USER:**
```

```
*This is important: only generate response using the tone above if issue type equals
INCIDENT otherwise for this field return "SERVICE REQUEST - NO INSTRUCTIONS REQUIRED".
```

```
**3. PROPOSED ACKNOWLEDGEMENT TO END-USER:**
```

```
*This is important: only generate response if issue type equals "SERVICE REQUEST" by
acknowledging the service request and generate response accordingly for the end-user
otherwise for this field return "INCIDENT - NO ACKNOWLEDGEMENT REQUIRED".
```

Message

Derived from **dTicketDetails**

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APPENDIX B

Service Operations Agent Definitions

Service provider is an organization providing services.

Service operations platform

- As simple as a form and database
- ITSM/Helpdesk (ServiceNow, ManageEngine, ZenDesk, Jira, etc.)
- Case Management System
- Customer management module in a larger solution (SAP, Salesforce, Workday,)
- Cloud Customer Care offering
- Combinations of one or more of the above

Service operations analyst

- Service subject matter expert (SME)
- Examples: CSR, Help Desk Tech, Customer Care, Support

Service requester

- Employee, Customer, Client, Constituent

Service request classification

- Service ticket
 - A digital to-do item that represents a specific task or issue that needs attention.
 - It is like a virtual sticky note that says, "Hey, something needs fixing or answering!"
 - Example: When a customer reports a problem with their computer, a ticket is created to track that issue. The ticket contains details like the problem descriptions, priority, and who is responsible for solving it.
- Incident
 - An incident is an unexpected event or disruption.
 - It is critical and needs immediate attention.
Example: When a system goes down, it is an incident. This issue needs immediate action and attention to resolve quickly.
 - Priority and escalation can be dynamically GenAI tagged.
 - Automated communication can convey acknowledgment, status, and possible known steps to remediate.

Automation

- Automation interacts with your systems of record like a service operations platform and the other systems in the Service Ops environment. This also includes service operations team communications, requester communications, and other essential system integrations that make up your end-to-end process and engage the user teams of the process.
- Automation uses the GenAI response to further the action and augment service operations analyst activity.

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Augmented human interaction

- Augmented human interaction for the service operations analyst not only involves the humans but prepares them for tasks. This can be summaries, suggestions, proposed communications, referenced details, etc.
- Automation Co-Pilot provides a user experience for action oversight and decisioning when automation and/or the GenAI require additional handling of the request process.