DialogView Communication Platform

Functional Requirements Document

Overview

DialogView is a unified communication platform aiming to help customers interact with the help desk Customer Service of the organization effectively to resolve issues. The platform provides support in the form of Webchat, WhatsApp chat, SMS, Voice call, Video call, Screen sharing and Co-browsing. Platform also provides the ability to implement virtual agents and chat bots.

The product would be used by organization (primarily banking/Insurance) to help their customers have an active communication platform with their clients. The application will have two modules -

- Client-side chat window
- Agent side application

The client side window will be deployed on to the organization's website and will act as a chat bot for the end customers to connect to the agents. The agent side application will be a web application that can be accessed by the agents of the organization to address the issues raised by the customers.

User Classes and Characteristics

There are different types of users who will be accessing this application. The list of actors are -

- End customer - Will access the client side chat window to communicate with agent
- Enterprise Admin - Millennium admin who will be accessing the system to understand the list of client organizations who have registered for the application usage. For systems that are hosted at client location, the enterprise admin will not have any direct control over the client organization. For those customers using the cloud instance, the Enterprise admin will exercise a minimal amount of control.
- Client organization admin - This admin has the privilege to add Agents and assign them as managers/admins/agents. They also have privilege to assign department and teams to agents. They have overall control over the applications and can alter settings, initiate integrations and other such features of the application.
- Manager - A senior agent who has a team assigned under him/her. The manager can monitor the conversations of other agents under them and can take decisions pertaining to an ongoing conversation. The manager also has access to agent dashboard to perform analytics on the agents.
- Agent - The agent is the primary contact for the clients. The agents engage in live conversations with the clients and work on resolving the client issues. The agent has the privilege to chose their mode of communication from the available channels in the application.
- Tag – Unique name. For ease of use, tags can be presented as a command button for login users. (Make a payment, get statement summary, Payoff Statement, Open an Account, Close account etc…)
- Bots - There would be several bots in the application to manage each aspect of the application. The client communication will be initially handled by the concerned bot before.

Onboarding Flow

A Company has to be onboarded into DialogView in order for them to integrate the Chat Bot and add agents. A company can be onboarded directly by the Super Admin of DialogView or they can visit the dialogview.com website and sign up.

Sign Up Flow:

- A new company visits the DialogView website and signs up from https://dialogview.com/plans/.
- The company has to enter the following fields to complete the Sign Up form.

Sl No	Field Name	Field Type
1	First Name	Alphanumeric
2	Last Name	Alphanumeric
3	Company Email	Alphanumeric
4	Company Name	Alphanumeric
5	Role	Alphanumeric
6	Company Web URL	Alphanumeric
7	Company Number	Numeric

- After they click on submit, the request can be viewed by the Millennium Super Admin in the Enquiry List tab.
- The Millennium Admin should be able to verify the details entered and send a link to the email provided in the registration form.
- The Company Admin can click on the link to set their password and login to the Admin portal.

Manual Onboarding

The Millennium Admin should have an “Add Button” in the accounts page.

When they click on it, they should be able to register a new company.

The Millennium Admin can manually add a new company into DialogView by entering the following details :

Sl No	Field Name	Field Type
1	First Name	Alphanumeric
2	Last Name	Alphanumeric
3	Company Email	Alphanumeric
4	Company Name	Alphanumeric
5	Role	Alphanumeric
6	Company Web URL	Alphanumeric

7	Company Number	Numeric

A new user can be added into the Company by entering the following fields:

Sl No	**Field Name**	**Field Type**
1	First Name	Alphanumeric
2	Last Name	Alphanumeric
3	Email ID	Alphanumeric
4	Contact Number	Numeric
5	Role	Drop Down List

When a company is registered with DialogView, the Admin gets access to the Admin / Agent console. In order to onboard the chat bot into the company website, the application provides a snippet of code which is to be added in the HTML section of the website. The chat bot is then accessible to the end customers through which the conversation can be started.

Client-Side Chat Window -

- When at user clicks on the chat bubble the initial chat screen loads up asking the user to enter their details like - Name, Email id and Question.
- When this is entered, the Bot starts the conversation and waits for the response from the customer.
- The customer and Bot conversation takes place according to the intents.
- Intents are created by the application which are listened to by the bot and responds with respect to them.
- If there are no intents to be found, or the user needs to talk to an agent directly, user needs to press the 'Talk to an Agent' button. Once the chat starts, the client must have privileges to start/receive a voice call, video call and send/receive webchat messages
- During an ongoing call, the client must be able to go back to chat and then return to the ongoing call.
- The client must be able to receive a screen share from the agent.
- The client must be able to perform co-browsing with the agent vice versa.
- When the agent ends a chat, the client must receive a survey form to be filled or a rating which can be setup at the admin level

Conversation screen -

This screen can be accessed by Agents, Managers and Admins. When a client initiates a conversation and requests to chat to an agent, the chat messages appear on this screen. The various modules in this screen are :

- Customer Queues
- Online/Offline messages
- Agent online/offline
- Profile

- Chat window (SMS, Social media messages, Voice Call, Audio/Video, Chat, Co-browsing, Screen Share, Toggle between Chat and voice/video call, Task list, Meeting schedules, Chatbot conversations)

Login (common for all the user)

- The agent must be able to login to the application through this screen.
- During login, the Username and password of the agent needs to be asked.
- There should be a forgot password option for the agent to reset his password if forgotten.
- On pressing the 'Forgot Password' option, the agent must be redirected to another screen to enter his email id. A link must be sent to his email id to reset password.
- On clicking the link the user must be redirected to the change password page where new password can be set.
- Once new password is set, the user must be redirected to the login page to login again.
- Upon login, the agent must be redirected to the conversations screen.
- All other user (Manager, Admin and Enterprise Admin) will be redirected to the dashboard upon

Routing Logic

- When a client first reaches out for agent, the Welcome Bot would start the conversation by asking for the customer details. If the customer enters the details and presses the send button, then the chat is continued by the chat bot. (All conversations are initiated by the bot) but user will have the option to "Speak to an agent"
- If the customer presses the 'Talk to an Agent' button then the chat is taken up by a live agent and client is listed in the queue.
- The routing logic enables the application to pick the right agent using various rules. The routing algorithm should be as given below -
    - From the list of agents that support the channel, identify the online agents and send the message request to all these online agents.
    - Once an agent picks up this message for conversation, the agent becomes engaged and will not receive other new message request.
    - The engaged message will be removed from the customer queue of other agents.
    - If all agents are offline (outside work hours) when the client sends a message, then the message goes to the offline queue of the agent. The agent can respond from the offline queue through mail/ calls.
    - Once a conversation ends, the agent is moved back to online status and will start receiving messages into his online queue.
    - If the customer asks for a particular agent, the bot searches the database
        - If there is only one person with the name, the chat is routed directly to that Agent's queue
        - If there is more than one agent with the same name, all the names are fetched and shown to the customer
        - The customer should have the option to select the agent's name
        - The chat is routed to that particular agent
    -

Conversation Screen

- This is the screen that is mainly used for the conversation between the client and the agent.
- The various communications between the client and agent would happen through this screen
- **Client Messaging Channels** - The agents must be able to receive messages from clients through webchat, WhatsApp and SMS. The icon corresponding to a message must be displayed correctly depicting the channel from which the message came.
- **Message Queues** - A message from the client must come into the online queue tab on the conversation screen. This lists all the messages, from all the different channels received when the agent is in online state. If a message is sent to the agent when the agent in offline, the message will be listed under the offline queue. Once a message is taken up by the agent for conversation by picking up the conversation, the message moves into the engaged tab.
- **Multiselect conversations –** The agent should be able to select multiple chats from the queue at a time. When a chat is selected, there should be an option to minimise / close the chat and choose another on from the queue. The notifications should be updated in such a way that a new incoming message as well as a new chat should come up in the front of the queue in a LIFO model. The agent shouldn't be able to select another chat if the current chat has video / audio or screensharing on. If the agent is currently in a chat, if another customer calls, the agent should be able to answer the call as well as send messages to the current customer.
- **Client Information** - When a client sends a message to the application, the details regarding the website page the client is on, the question asked, the phone number (in case of SMS or WhatsApp also (channel)), name of client (Guest - if not provided) needs to be captured. This information must be displayed in a tool-tip pop up when the cursor is placed near the client name in the online tab. For logged in users, the tool tip also needs to provide statistics of past visits.
- **Voice Call** - In between conversation, the agent/ client must be able to initiate a voice call. The call must have a ringtone while it is getting connected. The call must show the status as initiating call, call connected etc. in the chat area. Once the call is picked up (accept or reject call should be enabled and continue to do the chat) by the other user, the agent and client must be able to communicate with each other. The agent/client must be able to mute/unmute the voice in between call. The agent/client must be able to return to the chat screen while the call is active. The call can be ended by either the agent or the client and proper message that the call has been ended and by whom must be displayed in the chat area. The call transcript must be recorded for training/future reference purpose. A disclaimer announcing the same must be sent to the client before the call is started. Admin should have the ability to set the disclaimer and the content on or at the beginning of the chat conversation
- **Video Call** - In between conversation, the agent/ client must be able to initiate a video call by pressing the video call icon. The call must have a ringtone while it is getting connected (once the video call is connected the client should be able to mute the voice). The call must show the status as initiating call, call connected etc. in the chat area. Once the call is picked up by the other user, the agent and client must be able to communicate with each other. Video of both agent and client must appear on screen for both the parties. The agent/client must be able to mute/unmute the voice in between call. The agent/client must be able to turn on/off the video in between call. The agent/client must be able to toggle between the chat screen while the call is active. The call can be ended by either the agent or the client and proper message that the call

has been ended and by whom must be displayed in the chat area. The call transcript must be recorded for training/future reference purpose. A disclaimer announcing the same must be sent to the client before the call is started.

- **Screen Share** - The agent must be able to initiate a screenshare. The client must be able to accept the screen share and see the agent screen. While sharing the screen both Agent and Customer should have the ability to mute/unmute audio.
- **Co-browsing -** The agent must be able to start a co-browsing session with the client. Agent must be able to select a document to begin co-browsing. The document must be sent to the client before initiating co-browsing. Both parties can initiate a co-browsing session. A Document co-browsing will have the initiating party upload a document and give the other party permission to access the document using a link and pin. If it is a global co-browsing it will be a browsing session of a webpage or a web application. In both instance the applications should be smart enough to identify personally identifiable information and mask it.
- **Attachments -** The agent/ client must be able to send/receive attachments through the chat window.
- **Canned Messages –** Agent to be presented with possible best answers for similar questions asked in the past. Once agent picks the answer the it will appear on the type portion of the chat window and agent is able to modify the answer then to send the message.
- **End Conversation** - The agent must be able to end a conversation by pressing the end button. On ending the conversation, the client must be presented with a survey to rate the conversation and agent. A message must be displayed for the client indicating that the transcript of the conversation would be emailed to the client. Upon conversation end, the agent must receive a survey screen rating the conversation. The agent must also be given the provision to enter notes and set reminders for follow ups. Chats once ended must get cleared from the conversation page and the customer must be moved to the closed chats tab.
- **Notes** - The agent must be prompted to include concluding notes if any when a chat is ended. The notes corresponding to a chat must get saved along with the chat when a conversation is ended.
- **Reminders** - On ending a conversation, the agent must be prompted to add reminders with date. This feature enables the agent to keep track of the follow up activities and to-do items related to a conversation. The list of reminders set at the end of the conversation must get displayed for the agent in the conversation screen sorted date wise. The Reminder section will be in the following format:
    - The list of reminders should be displayed with check boxes as a To – Do List
    - When a reminder is completed, the agent should be given the ability to check the boxes and delete if necessary
    - All selected reminders should strike off
    - All reminders should have Edit / Delete option
    - There should be an option to add a new reminder with following fields:
        - Title
        - Description
        - Date
        - Time
        - Add the following buttons:

        - Save
        - Cancel
        - Close
- **Conversation history** - When a chat is ended, the chat, audio, video and notes must get saved and should be available for reference in the conversation history page. During a chat if the agent presses the conversation history button, all previous conversations of this client must get displayed. There should be an option to export the fields into a corresponding PDF / PNG or a CSV format. It should have the following fields:
    - Header
        - Report Name
        - Company Logo
        - Company Name
        - Created By
        - Created Date
    - Body
        - Inputs according to filters selected
        - Output rows which contain Channel type, Agent Name, topic, customer name.
    - Footer
        - Page number
        - Dialogview Logo
- **Document Repository –** The agent should have the ability to maintain a repository where they can save all frequently used documents. The documents from this repository can be shared to the client via screenshare, or directly through chat. There should also be an option to select multiple documents and send them together.
- **Status –** The agent is given an option to switch the status between Online / Offline. When Online, the agents will get notifications on new chats. When turned offline, the agent will not receive new chat notifications. When the agent is online, the profile picture should have a badge with green colour, and when an agent picks up the chat or a call, the status of that agent will be changed to red. Else the badge will be grey.
- **Notifications –** When an agent is online, they are notified about the new chat in the following ways
    - A notification sound
    - Blinking in the title bar
    - Badge in the title bar showing number of unread notifications
    - Badge in the customer queue
    - A notification badge in each chat window when clicked on takes to the bottom of the window.

Conferencing

Scheduled Conferencing

A scheduled conference involves the agent or the organizer scheduling a meeting at a planned date and inviting the participants. The meeting should be started by the agent / organizer and the participants can join using the links.

Following are the steps involved in this module:

- The agent can schedule a meeting by clicking on the "New Meeting" link.
- The New Meeting window should have the following details:

Field Name	Field Type	Description
Meeting Name	Alphanumeric	The name given to the meeting / Title of the meeting
Attendees	Email	The list of attendees' email addresses
Date and Time	Date / Time picker	The date and time of the meeting to be scheduled
Additional Details	Alphanumeric	Any details / Notes related to the meeting

- When the agent clicks on "Schedule", meeting invites are sent to all the participants via email.
- The email content should be as follows:

Hello <Name>!

You have been invited to join a DialogView meeting. You can join the meeting by clicking on the link below:

<link>

You can also Dial In through < Number > with the meeting ID <id> and password <password>

- The participant's calendar should be updated with the meeting details.
- The participants can click on the meeting link and enter the meeting ID and password
- After entering the Meeting ID and Password, the interface should ask for their names
- The participants will be waiting in the lobby and the organizer will let them in

Realtime Conferencing

Realtime Conferencing refers to when multiple users are added to an ongoing call. The agent / organizer is in a conversation and one of them can initiate an audio / video call. The following steps are involved in this module:

- Guests are added to the call by sending them invites through email or SMS.
- The Email / SMS content is as follows:

Hello <Name>!

You have been invited to join a DialogView meeting. You can join the meeting by clicking on the link below:

<link>

You can also Dial In through < Number > with the meeting ID <id> and password <password>

- The number of users / guests added should be less than or equal to 6.
- The passcode should be numerical
- All events should be recorded and shown in the conversation window and conversation history.
    - Audio / Video calls started / ended

Integrations

- **Chat Bot:** Once the Company Admin logs in, under the "Integrations" tab, the code snippet is provided which can be added to the Company Website for the Chat Bot to start working.
- **SMS:** This feature enables the company to register their SMS number into the platform so that their customers can interact with the bot / live agents through SMS**.** At the time on onboarding, The DialogView Admin should be able to select the SMS provider at the "Accounts" page.
    - There should be a drop down which shows two service providers:
        - Joon
        - Twilio
    - After the Onboarding is completed, the Admin of the company can go to Integrations → SMS and enter the following details:
        - If the DialogView Admin has selected "Joon" as the SMS provider for that particular company, The application should ask for the SMS number and token.
        - Fields:
            - SMS Number : Numeric
            - Token : Alphanumeric
        - If the DialogView Admin has selected "Twilio" as the SMS provider for that particular company, The application should ask for the SMS number.
            - SMS Number : Numeric
    - In case, the company has their own Twilio account, the following fields must be entered:
        - Phone Number
        - Account SID
        - Auth Token

    (Note : This functionality is not being implemented currently.)

The agent should have the ability to initiate an SMS chat from the agent portal. Chats initiated like this should be kept open in the queue. The conversation would be between the client and the agent with no involvement of the bot.

The SMS should be initiated with the following input fields:

- ChannelType - (dropdown) SMS, Whatsapp
- Customer Name
- Number
- Topic
- Body

- **WhatsApp**: The Admin can login to the Admin Portal, under the “Integrations” tab, and WhatsApp Number so that the company’s WhatsApp Business Number is integrated with the platform.
- **Facebook**: The company can register their Facebook account with DialogView by entering the Token ID
- **Voice Call Integration**: The company admin can go to the “Integrations” page and add the following details for SIP Trunk registration:
    - Main Number
    - IP/Domain
    - Username
    - Password

SIP Integration

The application provides a functionality for the companies to register their own SIP trunks so that it can be configured in such a way that the end users can call to a Main Number and the DialogView Bot answers the call. Once the call is answered, according to the intents, the call can be transferred to the corresponding agents or a department according to the use case. To register a SIP trunk, the following steps are to be followed:

- After the company is onboarded, the Millennium Super Admin should have the ability to add the following fields for a company:
    - Agent ID
    - Key
    - Bot Number
- The Admin of the company can go into the User Management page and configure an extension for each agent. This way, the call can directly transferred to that particular agent if needed. The following details have to be entered:
    - VoIP number
    - Extension
- The agent can also configure the settings in such a way that the call can be routed directly into their soft phones.

After the SIP routing functionality is implemented, all calls landing on the main number should queue up in the agent console and all corresponding agents should have the ability to pick up calls just like chats.

Voice Call integration – Different cases:

1. **Bot answering the call**
    a. Calls hitting the trunk triggers the DialogView Bot
    b. The bot listens to the customer and responds according to the intents saved
    c. The customer can disconnect the call if the bot has answeres the query.
2. **Calls coming into the agent queue in Web Console**
    a. Calls hitting the trunk should be answered by the bot
    b. The bot listens to the intents and responds accordingly
    c. If there are no intents available, the call is transferred to the Dialog View agent queue

    d. The agents can see the calls in the queue and pick up the call to talk directly to the customer.

3. **Call routing to Agent / Extension**
    a. Calls hitting the trunk should be answered by the bot
    b. The bot listens to the intents
    c. If the customer asks for a particular agent, the bot searches the database
        i. If there is only one person with the name, the call is routed directly to that Agent's queue
        ii. If there is more than one agent with the same name, all the names are fetched and shown to the customer
        iii. The customer should have the option to select the agent's name
        iv. The call is routed to that particular agent.
        v. If the routing option is enabled by the agent, it can be configured in such a way that the calls ring in the agent's soft phone.
        vi. The agent can talk to the customer directly from the softphone

User Management

The Company Admin can add multiple users and assign teams and departments to them. The users can be viewed, added or disabled from the "User Management" page in the Admin console.

A new user can be added into the Company by entering the following fields:

Sl No	Field Name	Field Type
1	First Name	Alphanumeric
2	Last Name	Alphanumeric
3	Email ID	Alphanumeric
4	Contact Number	Numeric
5	Role	Alphanumeric

Teams and Departments

A company will be provided with the functionality to add multiple Teams and Departments and assign agents to them. The Admin will be able to Add, Edit and Delete Teams and Departments.

In the Teams View, the Admin will be able to view the list of Teams added, Associated Agents and Actions where they can Modify or Delete that particular Team.

In the Departments page, the Admin will be able to view the list of Departments added, Associated Teams and Actions where they can Modify or Delete that particular Department.

This module can be used when tag based system is implemented and that chat is routed to the appropriate department.

Company Admin User Privileges

- Admin user of a company has various product level integrations and customisation features.
- Application UI customisations

- Admin has the privilege to customize the client side chat window.
- Admin must be able to customise the colour, font and logo of the client side chat window.
- Admin must be able to decide the initial message that is displayed beside the chat bubble.
- Admin must be able to select the list of tags and bots that will be used in the chat
- Enable/Disable recording disclaimer (disclaimer message)
- Add Departments and Managers (Import depts, managers and agents) not sure if we can do a single sign on.
- Enable disable chat window menu items (mute /email)
- Able to see current list of services/ Payment terms/departments and users
- Ability to view systems logs (access, users etc.)

Reports

- The conversation history page is when a chat is ended, the chat, audio, video and notes must get saved and should be available for reference in the conversation history page. During a chat if the agent presses the conversation history button, all previous conversations of this client must get displayed. There should be an option to export the fields into a corresponding PDF / PNG or a CSV format. It should have the following fields:
    - Header
        - Report Name
        - Company Logo
        - Company Name
        - Created By
        - Created Date
    - Body
        - Inputs according to filters selected
        - Output rows which contain Channel type, Agent Name, topic, customer name.
    - Footer
        - Page number
        - Dialogview Logo

The reports should be created on the basis of the input filters. The following are all the possible filters that can be added:

- Start Date
- End Date
- Date Range
- Communicator – Agent / Bot
- Agent Name
- Channel
- Customer Name

The reports should have a consolidated table containing the following fields:

- Customer Name
- Date and Time

- Agent Name
- Status
- Topic

This should be followed by a detailed report of individual entries with all possible details:

- Customer Name
- Agent Name
- Status
- Topic
- Channel
- Conversation History – Bot and Agent
- Notes, Attachments if any