

Intelligent Customer Support Chatbot - User Manual

Table of Contents

1. [System Overview](#)
 2. [Getting Started](#)
 3. [System Components](#)
 4. [Customer Interaction Flow](#)
 5. [Intent Detection & Routing](#)
 6. [Escalation Procedures](#)
 7. [Multi-Channel Support](#)
 8. [Logging & Analytics](#)
 9. [Configuration Guide](#)
 10. [Troubleshooting](#)
-

System Overview

The Intelligent Customer Support Chatbot is an automated n8n workflow designed to handle customer inquiries across multiple channels, intelligently route requests, and escalate high-priority issues to your support team. The system uses AI-powered responses, automatic ticket creation, and comprehensive logging to streamline your customer support operations.

Key Features

- Multi-channel support (Web, WhatsApp, Email)
- AI-powered response generation using OpenAI
- Intelligent intent detection and classification
- Automatic priority assignment
- Smart escalation for high-priority issues
- Support ticket creation in Airtable
- Real-time team notifications via Slack and Email
- Comprehensive conversation logging in Google Sheets
- CRM integration capabilities
- Automated follow-up emails

Getting Started

Prerequisites

Before activating the workflow, ensure you have the following:

1. API Credentials:

- OpenAI API key
- Airtable API credentials
- WhatsApp Business API access
- Slack workspace and API token
- Google Sheets API credentials
- Email service credentials (SMTP or provider)

2. Setup Requirements:

- Active n8n installation
- Configured webhook endpoint
- Airtable base with support ticket structure
- Google Sheet for conversation logs
- CRM webhook URL (optional)

Initial Configuration

1. Import the workflow JSON into your n8n instance
2. Configure all credential connections in each node
3. Update the webhook path to match your domain
4. Set up your Google Sheet with appropriate column headers
5. Configure email addresses for support team notifications
6. Test the workflow with sample data before going live

System Components

1. Web Chat Webhook

Purpose: Entry point for all customer interactions

Configuration:

- Webhook Path: `/customer-chat`
- Response Mode: Response Node
- Expected Input Format:

```
json
{
  "message": "Customer message text",
  "customerId": "unique_customer_id",
  "customerEmail": "customer@email.com",
  "customerPhone": "+1234567890",
  "channel": "web|whatsapp|email"
}
```

2. Intent Detection & Priority Assignment

Purpose: Analyzes customer messages to determine intent and priority level

Detected Intents:

- **Refund/Return:** Keywords include "refund", "return" (Priority: Medium)
- **Technical Issues:** Keywords include "broken", "not working" (Priority: High)
- **Order Status:** Keywords include "order", "track" (Priority: Medium)
- **Billing:** Keywords include "billing", "payment" (Priority: High)
- **Cancellation:** Keywords include "cancel", "stop" (Priority: Medium)
- **General:** All other inquiries (Priority: Low)

Output Data:

```
json
{
  "intent": "technical|refund|order_status|billing|cancellation|general",
  "priority": "High|Medium|Low",
  "timestamp": "ISO timestamp",
  "customer_message": "Original message",
  "customer_id": "Customer identifier",
  "channel": "Communication channel"
}
```

3. AI Response Generator

Purpose: Creates contextual, helpful responses using OpenAI

Settings:

- Temperature: 0.7 (balanced creativity/consistency)
- Max Tokens: 500
- Model: GPT (configurable in OpenAI node)

Customization Tips:

- Adjust temperature for more/less creative responses
- Increase max tokens for longer, detailed responses
- Add system prompts to define brand voice and guidelines

4. Channel Router

Purpose: Directs responses to appropriate communication channel

Supported Channels:

- Web Chat (webhook response)
- WhatsApp (direct message)
- Email (follow-up message)

5. Escalation System

Purpose: Automatically escalates high-priority issues

Escalation Triggers:

- Priority level = "High"
- Specific keywords detected (configurable)

Escalation Actions:

- Creates support ticket in Airtable
- Sends Slack alert to support team
- Emails support team with full context
- Logs escalation status

6. Support Ticket Creation

Purpose: Records all escalated issues in Airtable

Required Airtable Fields:

- Customer ID
- Intent/Issue Type
- Priority Level
- Customer Message
- AI Response
- Timestamp
- Channel
- Status (defaults to "Open")

7. Notification System

Purpose: Keeps support team informed in real-time

Notification Types:

Email Notifications:

- Sent to: support-team@company.com
- Contains: Customer details, issue summary, AI response, priority level

Slack Alerts:

- Triggered for: High-priority escalations
- Contains: Urgent issue summary with actionable information

8. Conversation Logger

Purpose: Maintains comprehensive interaction records

Logged Information:

- Timestamp
- Customer ID
- Intent and Priority
- Customer Message

- AI Response
- Communication Channel
- Escalation Status
- Ticket ID (if created)

Storage Location: Google Sheets (configurable)

9. CRM Integration

Purpose: Syncs customer interactions with external CRM

Webhook Configuration:

- Method: POST
 - Payload: Complete interaction data
 - Endpoint: Configurable (currently Zapier webhook)
-

Customer Interaction Flow

Standard Flow (Non-Escalated)

1. Customer sends message via webhook
2. System detects intent and assigns priority
3. AI generates appropriate response
4. Response sent via customer's channel (web/WhatsApp)
5. Interaction logged to Google Sheets
6. Data synced to CRM
7. Follow-up email sent to customer (if email provided)

Escalated Flow (High Priority)

1. Customer sends message via webhook
2. System detects high-priority intent
3. Support ticket created in Airtable
4. Slack alert sent to support team
5. Email notification sent to support team
6. AI response still sent to customer

7. Complete interaction logged
 8. Follow-up email includes ticket ID
 9. Data synced to CRM
-

Intent Detection & Routing

Customizing Intent Detection

To modify or add intents, edit the "Detect Intent & Priority" function node:

```
javascript

// Example: Adding a new intent
if (message.includes('your_keyword')) {
  intent = 'your_intent_name';
  priority = 'Medium'; // or 'High'/'Low'
}
```

Best Practices for Intent Keywords

- Use clear, unambiguous keywords
- Test with real customer messages
- Regularly review misclassified conversations
- Update keywords based on common phrases
- Consider using multiple keywords per intent
- Account for variations in spelling and phrasing

Priority Level Guidelines

- **High:** Immediate attention required (billing issues, broken products, service outages)
 - **Medium:** Timely response needed (refunds, order tracking, cancellations)
 - **Low:** General inquiries, FAQs, informational requests
-

Escalation Procedures

Automatic Escalation

The system automatically escalates when:

- Priority is set to "High"
- Specific intent types are detected
- Custom conditions are met (configurable)

Manual Escalation Override

Support team members can manually escalate any ticket through:

- Airtable interface (update Priority field)
- Slack commands (if configured)
- Direct ticket assignment

Escalation Response Times

Configure your team's target response times:

- **High Priority:** Within 1 hour
 - **Medium Priority:** Within 4 hours
 - **Low Priority:** Within 24 hours
-

Multi-Channel Support

Web Chat Configuration

1. Embed webhook URL in your website chat widget
2. Ensure proper JSON formatting from chat interface
3. Test connection before deploying

Webhook URL Format:

`https://your-n8n-instance.com/webhook/customer-chat`

WhatsApp Integration

1. Set up WhatsApp Business API credentials
2. Configure WhatsApp node with phone number format
3. Ensure customer phone numbers include country code
4. Test message delivery

Phone Number Format: +[country code][number]

Email Support

1. Configure SMTP or email service credentials
 2. Set up email templates for consistency
 3. Customize sender name and address
 4. Test email delivery and formatting
-

Logging & Analytics

Google Sheets Log Structure

Recommended Column Headers:

- Timestamp
- Customer ID
- Intent
- Priority
- Customer Message
- AI Response
- Channel
- Escalated (YES/NO)
- Ticket ID
- Resolution Status
- Response Time

Analyzing Conversation Data

Use the logged data to:

- Identify common customer issues
- Track resolution times by priority
- Monitor AI response quality
- Optimize intent detection keywords
- Measure support team performance
- Generate monthly reports

Data Retention

- Configure automatic archiving for old conversations
 - Set up regular backups of Google Sheets
 - Implement data privacy compliance measures
 - Regularly audit logged information
-

Configuration Guide

Node-by-Node Setup

1. Webhook Node

- **Webhook Path:** Set unique, memorable path
- **Response Mode:** Must be "responseNode"
- **Authentication:** Configure if needed for security

2. OpenAI Node

- **API Credentials:** Add OpenAI API key
- **Temperature:** 0.7 recommended (0.0-1.0 range)
- **Max Tokens:** 500 recommended for concise responses
- **System Prompt:** Optional - define bot personality

3. Airtable Node

- **Credentials:** Add Airtable API key
- **Base ID:** Your support ticket base
- **Table Name:** Your support ticket table

- **Field Mapping:** Map workflow data to Airtable fields

4. WhatsApp Node

- **Credentials:** WhatsApp Business API token
- **Phone Number ID:** Your business phone number
- **Message Template:** Configure for compliance

5. Slack Node

- **Credentials:** Slack workspace token
- **Channel:** #support or designated channel
- **Message Format:** Customize alert appearance

6. Google Sheets Node

- **Credentials:** Google OAuth2 credentials
- **Spreadsheet ID:** Your log spreadsheet ID
- **Sheet Name:** Worksheet name
- **Range:** Starting cell (e.g., A1)

7. Email Nodes

- **SMTP Settings:** Host, port, security
- **From Address:** Your support email
- **Templates:** Customize for brand voice

Troubleshooting

Common Issues & Solutions

Webhook Not Receiving Data

Symptoms: No workflow executions when customers message **Solutions:**

- Verify webhook URL is correct and accessible
- Check firewall/security settings on n8n instance
- Confirm JSON payload format matches expected structure

- Test with manual webhook trigger
- Review n8n execution logs

AI Responses Not Generating

Symptoms: Error in OpenAI node or blank responses **Solutions:**

- Verify OpenAI API key is valid and has credits
- Check API rate limits and quotas
- Confirm message text is being passed correctly
- Review error messages in node execution
- Test with simplified prompt

Escalations Not Triggering

Symptoms: High-priority issues not creating tickets **Solutions:**

- Verify "Check for Escalation" IF node conditions
- Confirm priority is being set correctly by intent detector
- Check Airtable credentials and permissions
- Review connection between nodes
- Test with known high-priority keyword

WhatsApp Messages Not Sending

Symptoms: Messages not delivered to customers **Solutions:**

- Verify WhatsApp Business API is active
- Check phone number format (must include country code)
- Confirm template approval status
- Review WhatsApp API rate limits
- Check customer phone number validity

Logging Failures

Symptoms: Conversations not appearing in Google Sheets **Solutions:**

- Verify Google Sheets API credentials
- Confirm spreadsheet ID and sheet name are correct
- Check permissions on the spreadsheet

- Ensure range specification is valid
- Review data format being sent to Sheets

Email Notifications Not Delivered

Symptoms: Support team not receiving alerts **Solutions:**

- Verify SMTP credentials and settings
- Check spam/junk folders
- Confirm email addresses are correct
- Test with simple email first
- Review email service provider logs

Testing Checklist

Before going live, test:

- ☐ Webhook receives and processes messages
- ☐ Intent detection works for each category
- ☐ AI generates appropriate responses
- ☐ Web chat responses work
- ☐ WhatsApp messages send correctly
- ☐ High-priority escalations trigger
- ☐ Airtable tickets are created
- ☐ Slack alerts are sent
- ☐ Email notifications work
- ☐ Google Sheets logging functions
- ☐ CRM webhook updates successfully
- ☐ Follow-up emails are delivered

Performance Optimization

- Monitor workflow execution times
- Optimize function node code for efficiency
- Set appropriate timeouts for external API calls
- Implement caching where applicable
- Regular cleanup of old logs and data
- Monitor API usage and costs

Security Best Practices

- Rotate API credentials regularly
 - Implement webhook authentication
 - Encrypt sensitive customer data
 - Restrict access to n8n workflow editor
 - Regular security audits
 - Compliance with data protection regulations
-

Support & Maintenance

Regular Maintenance Tasks

Daily:

- Monitor Slack alerts for system issues
- Review high-priority escalations

Weekly:

- Audit conversation logs for quality
- Update intent keywords based on patterns
- Review AI response accuracy

Monthly:

- Analyze performance metrics
- Update documentation
- Review and rotate API credentials
- Backup workflow configuration
- Generate reports for stakeholders

Getting Help

- Review n8n community forums for common issues
- Consult API documentation for integrated services
- Contact Anthropic support for AI-related questions

- Check this manual's troubleshooting section
 - Review execution logs in n8n interface
-

Appendix

Glossary of Terms

- **Intent:** The purpose or goal behind a customer's message
- **Priority:** The urgency level assigned to a customer inquiry
- **Escalation:** Process of elevating an issue to human support
- **Node:** Individual component in the n8n workflow
- **Webhook:** HTTP endpoint that receives external data
- **CRM:** Customer Relationship Management system

API Rate Limits

Be aware of rate limits for:

- OpenAI: Varies by plan (check current limits)
- WhatsApp: 1000 messages per day (Business API tier)
- Airtable: 5 requests per second per base
- Google Sheets: 100 requests per 100 seconds per user

Useful Resources

- n8n Documentation: <https://docs.n8n.io>
 - OpenAI API Reference: <https://platform.openai.com/docs>
 - Airtable API: <https://airtable.com/developers/web/api>
 - WhatsApp Business API: <https://developers.facebook.com/docs/whatsapp>
-

Version: 1.0

Last Updated: January 2026

Maintained By: Your Support Team

For questions or suggestions about this manual, please contact your system administrator.