

Module 3: Human Handoff - Detailed Functional Requirements

Document Info

Module: Human Handoff | **Version:** 1.0 | **Status:** Approved

Module 3: Human Handoff Screens

HH-3.1 to HH-3.3 Requirements Coverage

3.1 AI Low Confidence Escalation (HH-3.1.1)

A chat interface with a purple header 'Support Assistant Online'. The AI assistant sends a message: 'I understand you're having an API integration issue. Could you provide more details about the specific error?'. The user replies: 'The webhook returns 403 but only on POST requests with custom headers and it started after your last update'. The AI assistant then sends: 'I have a complex issue with my API integration not working with your webhook system'. At the bottom is a text input field 'Type a message...' and a blue send button.

3.2 Customer Requests Human (HH-3.1.2)

A chat interface with a purple header 'Support Assistant Online'. The AI assistant asks: 'Hi! How can I help you today?'. The user replies: 'I want to speak to a real person please'. The AI assistant replies: 'Of course! I'll connect you with a team member right away. Please hold for just a moment.' Below this is a progress bar and the text 'Connecting you to an available agent...'. At the bottom is a text input field 'Type a message...' and a blue send button.

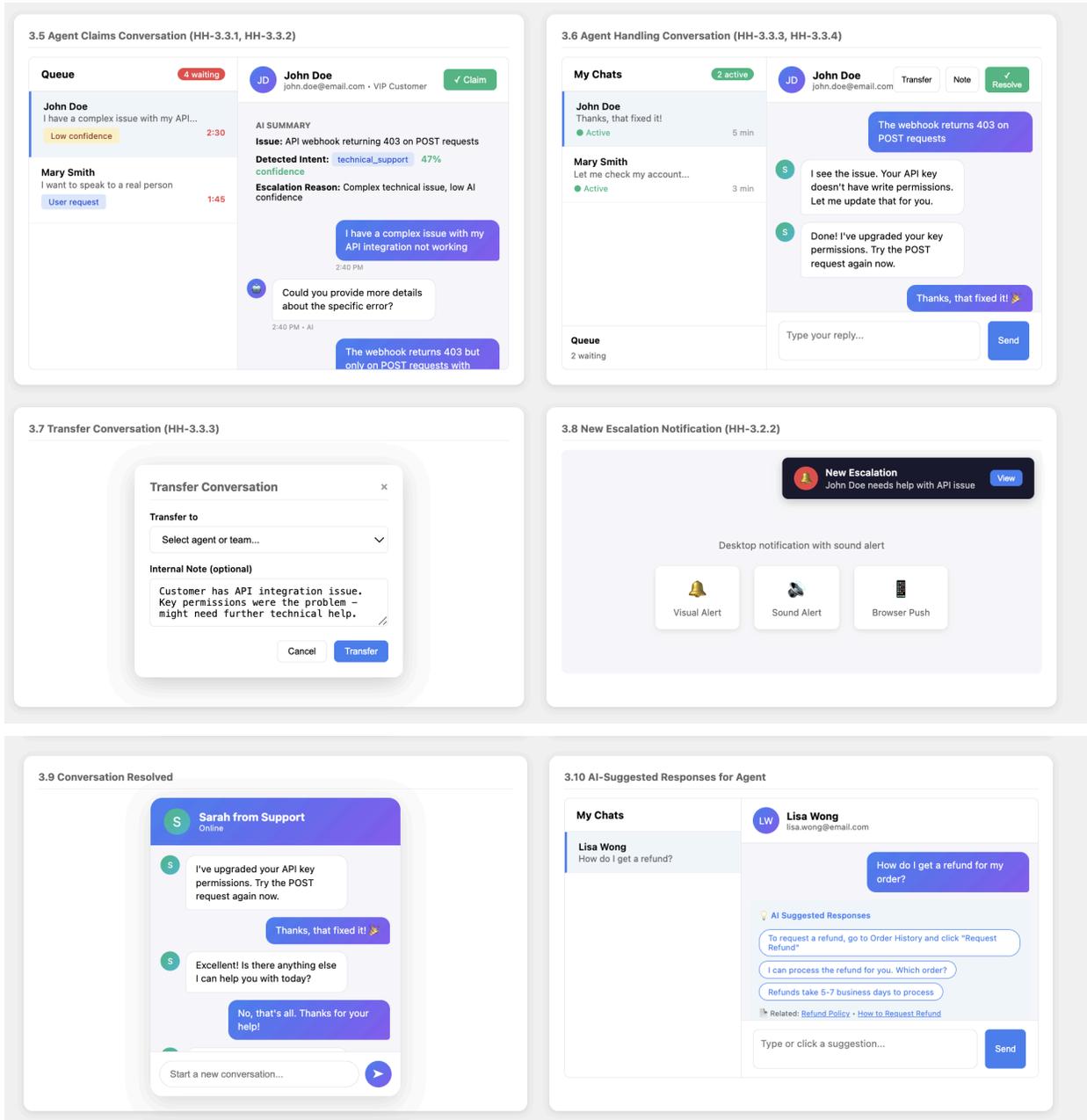
3.3 Agent Connected - Customer View (HH-3.2.3)

A chat interface with a purple header 'Sarah from Support Online'. A system message says 'Connecting you with a team member...' followed by '✓ Sarah has joined the chat'. The agent Sarah says: 'Hi there! I'm Sarah from the support team. I can see you were having some trouble with our AI assistant. How can I help you today?'. The user replies: 'Yes, I have a billing issue that'. At the bottom is a text input field 'Type a message...' and a blue send button.

3.4 Escalation Queue - Agent View (HH-3.2.1, HH-3.2.4)

An agent view interface showing a queue of conversations. On the left is a list of conversations with customer names, their issues, and status indicators. On the right is a large area with a red arrow pointing down and the text 'Select a conversation from the queue' and '4 customers waiting for assistance'.

Customer Name	Issue	Status	Time
John Doe	I have a complex issue with my API...	Low confidence	2:30
Mary Smith	I want to speak to a real person	User request	1:45
Robert Chen	This is ridiculous, I've been trying...	Frustrated	1:20
Lisa Wong	Can someone help me with refund?	3 fallbacks	0:45



1. Escalation Triggers

1.1 Automatic Triggers

ID	Trigger	Condition	Action
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HH-1.1.1	Low confidence	AI confidence <50%	Immediate escalation
HH-1.1.2	Medium confidence	AI confidence 50-69% twice	Escalate after retry
HH-1.1.3	Consecutive fallbacks	3 fallback responses in row	Auto-escalate
HH-1.1.4	Negative sentiment	Frustration/anger detected	Auto-escalate
HH-1.1.5	Complex query	Multiple intents detected	Auto-escalate
HH-1.1.6	Sensitive topic	Billing dispute, complaint	Auto-escalate
HH-1.1.7	Long conversation	>10 messages without resolution	Offer escalation

1.2 User-Initiated Triggers

ID	Trigger	Detection
HH-1.2.1	Direct request	"human", "agent", "person", "representative"
HH-1.2.2	Dissatisfaction	"not helpful", "doesn't work", "useless"
HH-1.2.3	Urgency	"urgent", "emergency", "immediately"
HH-1.2.4	Explicit phrases	"talk to someone", "real person", "speak to agent"

Trigger Keywords:

human, agent, person, representative, operator, real person, talk to someone, speak to agent, customer service, support team, manager, not a bot, actual human, live agent

1.3 Trigger Configuration

ID	Requirement	Details
HH-1.3.1	Enable/disable triggers	Admin can toggle each trigger type
HH-1.3.2	Confidence threshold	Admin sets confidence threshold (default 50%)

HH-1.3.3	Fallback limit	Admin sets fallback count (default 3)
HH-1.3.4	Sentiment sensitivity	Low/Medium/High sensitivity setting
HH-1.3.5	Business hours	Different behavior in/out of hours
HH-1.3.6	Trigger logging	Log all escalation triggers for analysis

Acceptance Criteria:

- All automatic triggers fire correctly
- User keywords detected accurately
- Configuration changes apply immediately

2. Escalation Process

2.1 Pre-Escalation

ID	Requirement	Details
HH-2.1.1	Confirmation	Ask customer to confirm handoff (optional)
HH-2.1.2	Context collection	Gather issue summary before transfer
HH-2.1.3	Queue check	Check agent availability before escalating
HH-2.1.4	Estimated wait	Show estimated wait time to customer
HH-2.1.5	Alternative offer	Offer callback/email if long wait

Pre-Escalation Flow:

AI: "I'd like to connect you with a team member. Before I do, could you briefly describe the issue you need help with?"

Customer: [Describes issue]

AI: "Thank you! Connecting you now. Estimated wait: 2 minutes."

2.2 Escalation Execution

ID	Requirement	Details
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HH-2.2.1	Status change	Set conversation status to "escalated"
HH-2.2.2	Queue placement	Add to escalation queue
HH-2.2.3	Priority assignment	Assign priority based on trigger type
HH-2.2.4	Agent notification	Notify available agents in real-time
HH-2.2.5	Customer message	Send "Connecting you..." message
HH-2.2.6	AI handoff	AI stops auto-responding
HH-2.2.7	Timestamp	Record escalation time

Priority Levels:

Priority	Trigger Type	Queue Position
Critical	Negative sentiment, VIP customer	Top of queue
High	User request, 3+ fallbacks	High priority
Normal	Low confidence, complex query	Standard

2.3 Queue Management

ID	Requirement	Details
HH-2.3.1	FIFO default	First-in-first-out queue order
HH-2.3.2	Priority override	Higher priority jumps queue
HH-2.3.3	Wait time tracking	Track time in queue per conversation
HH-2.3.4	SLA warnings	Alert if wait exceeds threshold
HH-2.3.5	Queue metrics	Show queue length, avg wait time
HH-2.3.6	Abandonment	Track if customer leaves before agent

Acceptance Criteria:

- [] Escalation completes in <2 seconds
 - [] Queue updates in real-time
 - [] Priority correctly applied
-

3. Agent Notification

3.1 Notification Channels

ID	Channel	Details
HH-3.1.1	In-app visual	Badge count, highlight in queue
HH-3.1.2	In-app sound	Configurable alert sound
HH-3.1.3	Browser push	Desktop notification (if permitted)
HH-3.1.4	Tab flash	Browser tab title flashes
HH-3.1.5	Mobile push	Push to mobile app (future)

3.2 Notification Content

ID	Requirement	Details
HH-3.2.1	Customer name	Show customer name or "Visitor"
HH-3.2.2	Preview	First line of customer message
HH-3.2.3	Escalation reason	Why AI escalated (badge)
HH-3.2.4	Wait time	How long customer waiting
HH-3.2.5	Customer tier	VIP/Regular indicator
HH-3.2.6	Action button	"View" or "Claim" button

Notification Example:

 New Escalation

John Doe (VIP)

"I need help with my API integration..."

Reason: Low AI confidence

Waiting: 45 seconds

[\[View\]](#) [\[Claim\]](#)

3.3 Notification Settings

ID	Requirement	Details
HH-3.3.1	Sound toggle	Agent can enable/disable sound
HH-3.3.2	Sound selection	Choose from preset sounds
HH-3.3.3	Push toggle	Enable/disable browser push
HH-3.3.4	DND mode	Do not disturb when busy
HH-3.3.5	Volume control	Adjust notification volume

Acceptance Criteria:

- Notifications arrive within 500ms
 - All channels work correctly
 - Settings persist per agent
-

4. Agent Queue Interface

4.1 Queue Display

ID	Requirement	Details
HH-4.1.1	Queue list	Show all escalated conversations
HH-4.1.2	Waiting count	Badge showing total waiting
HH-4.1.3	Sort by wait time	Longest waiting first (default)
HH-4.1.4	Sort by priority	Option to sort by priority

HH-4.1.5	Real-time update	Queue updates without refresh
HH-4.1.6	Auto-refresh	Poll every 5 seconds as backup

4.2 Queue Item Display

Field	Description
Customer name	Name or "Visitor #123"
Message preview	Truncated first message (50 chars)
Wait time	Time since escalation (mm:ss)
Escalation reason	Badge (Low confidence, User request, etc.)
Customer tier	VIP badge if applicable
Channel	Chat/Email/WhatsApp icon

4.3 Queue Filters

ID	Requirement	Details
HH-4.3.1	Filter by reason	Show only specific escalation types
HH-4.3.2	Filter by channel	Show only specific channels
HH-4.3.3	Filter by priority	Show only high priority
HH-4.3.4	Search	Search by customer name/email

Acceptance Criteria:

- Queue displays correctly
- Real-time updates work
- Filters function properly

5. Conversation Claiming

5.1 Claim Process

ID	Requirement	Details
HH-5.1.1	Preview before claim	Agent can view conversation before claiming
HH-5.1.2	One-click claim	Single button to claim
HH-5.1.3	Exclusive claim	Only one agent can claim
HH-5.1.4	Claim confirmation	Brief confirmation message
HH-5.1.5	Remove from queue	Claimed conversation leaves queue
HH-5.1.6	Assignment record	Record which agent claimed, when

5.2 Claim Conflict Handling

ID	Requirement	Details
HH-5.2.1	Race condition	If two agents claim simultaneously, first wins
HH-5.2.2	Loser notification	Second agent sees "Already claimed by [name]"
HH-5.2.3	Queue refresh	Loser's queue refreshes automatically

5.3 Auto-Assignment (Optional)

ID	Requirement	Details
HH-5.3.1	Round-robin	Distribute evenly among available agents
HH-5.3.2	Skill-based	Route to agent with matching skills
HH-5.3.3	Load-based	Route to agent with fewest active chats
HH-5.3.4	Accept/decline	Agent can accept or decline auto-assigned

Acceptance Criteria:

- Claim works correctly
 - Conflicts handled gracefully
 - Assignment recorded accurately
-

6. Agent Conversation View

6.1 Conversation Header

Field	Description
Customer avatar	Initials or photo
Customer name	Full name
Customer email	Email address
Customer tier	VIP/Regular badge
Channel	Source channel icon
Duration	Time since conversation started

6.2 AI Context Panel

ID	Requirement	Details
HH-6.2.1	AI summary	Brief summary of customer issue
HH-6.2.2	Detected intent	What AI thought customer wanted
HH-6.2.3	Confidence score	AI confidence percentage
HH-6.2.4	Escalation reason	Why AI escalated
HH-6.2.5	Extracted entities	Order ID, email, etc. found
HH-6.2.6	Suggested articles	Relevant KB articles
HH-6.2.7	Collapsible	Agent can collapse panel

AI Context Example:

AI Summary
Issue: Customer's webhook returns 403 on POST requests after update
Intent: technical_support (47%)
Reason: Complex technical issue

Entities:

- error_code: 403
- method: POST

Suggested Articles:

- API Authentication Guide
- Webhook Troubleshooting

6.3 Message History

ID	Requirement	Details
HH-6.3.1	Full history	Show all messages in conversation
HH-6.3.2	AI messages labeled	Clear "AI" badge on AI responses
HH-6.3.3	Agent messages labeled	Show agent name on their messages
HH-6.3.4	Timestamps	Show time for each message
HH-6.3.5	Scroll to bottom	Auto-scroll to newest message
HH-6.3.6	Load more	Load older messages on scroll up

6.4 Agent Actions

Action	Description
Send message	Reply to customer
Add internal note	Note visible only to agents
Transfer	Transfer to another agent/team
Resolve	Mark conversation as resolved
Tag	Add tags to conversation
View customer	Open customer profile

Acceptance Criteria:

- [] All context displays correctly
 - [] History loads completely
 - [] All actions function properly
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7. Agent Messaging

7.1 Message Composition

ID	Requirement	Details
HH-7.1.1	Text input	Multi-line text area
HH-7.1.2	Send button	Click to send
HH-7.1.3	Enter to send	Enter sends, Shift+Enter new line
HH-7.1.4	Character limit	Max 2000 characters
HH-7.1.5	Emoji support	Emoji picker available
HH-7.1.6	Attachments	Send files (if enabled)

7.2 Canned Responses

ID	Requirement	Details
HH-7.2.1	Quick access	Dropdown or shortcut to canned responses
HH-7.2.2	Search canned	Search by keyword
HH-7.2.3	Insert response	Click to insert into composer
HH-7.2.4	Edit before send	Agent can edit inserted response
HH-7.2.5	Personal canned	Agent can create personal responses
HH-7.2.6	Team canned	Shared team responses

7.3 AI-Suggested Responses

ID	Requirement	Details
HH-7.3.1	Auto-suggest	AI suggests responses based on context
HH-7.3.2	Multiple suggestions	Show 2-3 suggestions
HH-7.3.3	One-click use	Click suggestion to insert
HH-7.3.4	Relevance	Suggestions based on KB and intent
HH-7.3.5	Dismiss	Agent can dismiss suggestions
HH-7.3.6	Learn	Track which suggestions agents use

Acceptance Criteria:

- Messages send instantly
- Canned responses work
- AI suggestions are relevant

8. Conversation Transfer

8.1 Transfer Options

ID	Requirement	Details
HH-8.1.1	Transfer to agent	Select specific agent
HH-8.1.2	Transfer to team	Select team (routes to available)
HH-8.1.3	Agent availability	Show agent online/busy/offline status
HH-8.1.4	Agent workload	Show number of active chats

8.2 Transfer Process

ID	Requirement	Details
HH-8.2.1	Internal note	Optional note for receiving agent
HH-8.2.2	Customer notification	"You're being transferred to [name/team]"

HH-8.2.3	Instant transfer	Transfer completes immediately
HH-8.2.4	History preserved	Full history visible to new agent
HH-8.2.5	Transfer record	Log who transferred, to whom, when
HH-8.2.6	Original agent notified	Confirm transfer success

8.3 Transfer to Queue

ID	Requirement	Details
HH-8.3.1	Return to queue	Option to put back in general queue
HH-8.3.2	Priority preserved	Keep original priority
HH-8.3.3	Notes preserved	Keep internal notes

Acceptance Criteria:

- Transfer completes in <2 seconds
- Customer notified appropriately
- History fully preserved

9. Internal Notes

9.1 Note Features

ID	Requirement	Details
HH-9.1.1	Add note	Agent adds internal note
HH-9.1.2	Note visibility	Notes visible only to agents
HH-9.1.3	Note styling	Different visual style from messages
HH-9.1.4	Note timestamp	Show when note was added
HH-9.1.5	Note author	Show which agent added note
HH-9.1.6	Edit note	Agent can edit own notes

HH-9.1.7 Delete note Agent can delete own notes

Note Display:

Internal Note

 Customer mentioned they're a beta tester. Check if issue is related to beta features.

Added by Sarah M. • 2:45 PM

Acceptance Criteria:

- Notes save correctly
- Notes never visible to customer
- Notes display inline with messages

10. Conversation Resolution

10.1 Resolve Actions

ID	Requirement	Details
HH-10.1.1	Resolve button	One-click resolve
HH-10.1.2	Resolution type	Select: Resolved, Closed, Spam
HH-10.1.3	Resolution note	Optional summary note
HH-10.1.4	Customer notification	Send closing message to customer
HH-10.1.5	CSAT trigger	Trigger satisfaction survey
HH-10.1.6	Timestamp	Record resolution time

10.2 Resolution Types

Type	Description	Customer Message
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Resolved	Issue fixed	"Glad I could help! Have a great day."
Closed	No action needed	"Thanks for chatting with us!"
Spam	Spam/abuse	No message

10.3 Post-Resolution

ID	Requirement	Details
HH-10.3.1	Remove from active	Conversation leaves active list
HH-10.3.2	Metrics update	Update resolution metrics
HH-10.3.3	Handle time calc	Calculate total handle time
HH-10.3.4	Reopen option	Customer can reopen (within 24h)

Acceptance Criteria:

- Resolution completes properly
- Metrics calculated correctly
- Survey triggers (if enabled)

11. Customer Waiting Experience

11.1 Waiting State

ID	Requirement	Details
HH-11.1.1	Waiting message	"Connecting you with an agent..."
HH-11.1.2	Loading indicator	Animated spinner/dots
HH-11.1.3	Position in queue	"You are #3 in queue" (optional)
HH-11.1.4	Estimated wait	"Estimated wait: 2 minutes"
HH-11.1.5	Input disabled	Customer can't send during wait
HH-11.1.6	Cancel option	Customer can cancel and return to AI

11.2 Agent Joined

ID	Requirement	Details
HH-11.2.1	System message	"[Agent name] has joined the chat"
HH-11.2.2	Header update	Update header with agent name/photo
HH-11.2.3	Input enabled	Customer can send messages
HH-11.2.4	Sound (optional)	Play sound when agent joins

11.3 Offline Handling

ID	Requirement	Details
HH-11.3.1	Offline detection	Detect when no agents available
HH-11.3.2	Offline message	"No agents available right now"
HH-11.3.3	Leave message	Option to leave message/email
HH-11.3.4	Business hours	Show when agents will be back
HH-11.3.5	Callback request	Option to request callback

Acceptance Criteria:

- Wait experience is clear
- Agent join is obvious
- Offline handled gracefully

12. Agent Status Management

12.1 Agent Statuses

Status	Description	Receives Escalations
Online	Available for chats	Yes

Busy	At capacity	No (unless urgent)
Away	Temporarily away	No
Offline	Not working	No

12.2 Status Rules

ID	Requirement	Details
HH-12.2.1	Manual status	Agent can set own status
HH-12.2.2	Auto-busy	Auto-set busy at max chats
HH-12.2.3	Auto-away	Auto-away after X minutes idle
HH-12.2.4	Max concurrent	Admin sets max concurrent chats
HH-12.2.5	Status visible	Show status to other agents

Acceptance Criteria:

- Status changes work
- Auto-status triggers correctly
- Routing respects status

13. Performance Requirements

Metric	Target
Escalation time	<2 seconds
Notification delivery	<500ms
Queue update	Real-time (<1s)
Message delivery	<500ms
Transfer completion	<2 seconds

14. Data Model

Escalation Record

```
{
  id: UUID,
  conversation_id: UUID,
  triggered_at: Timestamp,
  trigger_type: Enum (low_confidence, user_request, sentiment, fallback),
  trigger_details: JSON,
  ai_confidence: Number,
  ai_intent: String,
  claimed_by: UUID (nullable),
  claimed_at: Timestamp (nullable),
  wait_time_seconds: Number,
  priority: Enum (critical, high, normal)
}
```

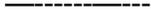
Transfer Record

```
{
  id: UUID,
  conversation_id: UUID,
  from_agent_id: UUID,
  to_agent_id: UUID (nullable),
  to_team_id: UUID (nullable),
  internal_note: Text,
  transferred_at: Timestamp
}
```

15. Security & Privacy

ID	Requirement
SEC-1	Only assigned agent can respond
SEC-2	Internal notes never exposed to customer
SEC-3	Transfer notes visible only to agents
SEC-4	Audit log for all actions
SEC-5	Customer data masked in notifications

SEC-6 Session validation on all actions



Module 3: Human Handoff Screens

HH-3.1 to HH-3.3 Requirements Coverage

3.1 AI Low Confidence Escalation (HH-3.1.1)

A chat interface showing a conversation with a 'Support Assistant' (Online). The assistant asks for more details about a complex API integration issue. The user provides a specific error: 'The webhook returns 403 but only on POST requests with custom headers and it started after your last update'.

Support Assistant
Online

I have a complex issue with my API integration not working with your webhook system

I understand you're having an API integration issue. Could you provide more details about the specific error?

The webhook returns 403 but only on POST requests with custom headers and it started after your last update

Type a message...

3.2 Customer Requests Human (HH-3.1.2)

A chat interface showing a conversation with a 'Support Assistant' (Online). The user asks for a real person. The assistant promises to connect to a team member and asks the user to hold.

Support Assistant
Online

Hi! How can I help you today?

I want to speak to a real person please

Of course! I'll connect you with a team member right away. Please hold for just a moment.

Connecting you to an available agent...

Type a message...

3.3 Agent Connected - Customer View (HH-3.2.3)

A chat interface showing a conversation with 'Sarah from Support' (Online). The assistant connects the user to a team member. A confirmation message states 'Sarah has joined the chat'. The assistant then introduces herself and offers help with the user's billing issue.

Sarah from Support
Online

Connecting you with a team member...

✓ Sarah has joined the chat

Hi there! I'm Sarah from the support team. I can see you were having some trouble with our AI assistant. How can I help you today?

2:45 PM

Yes, I have a billing issue that

Type a message...

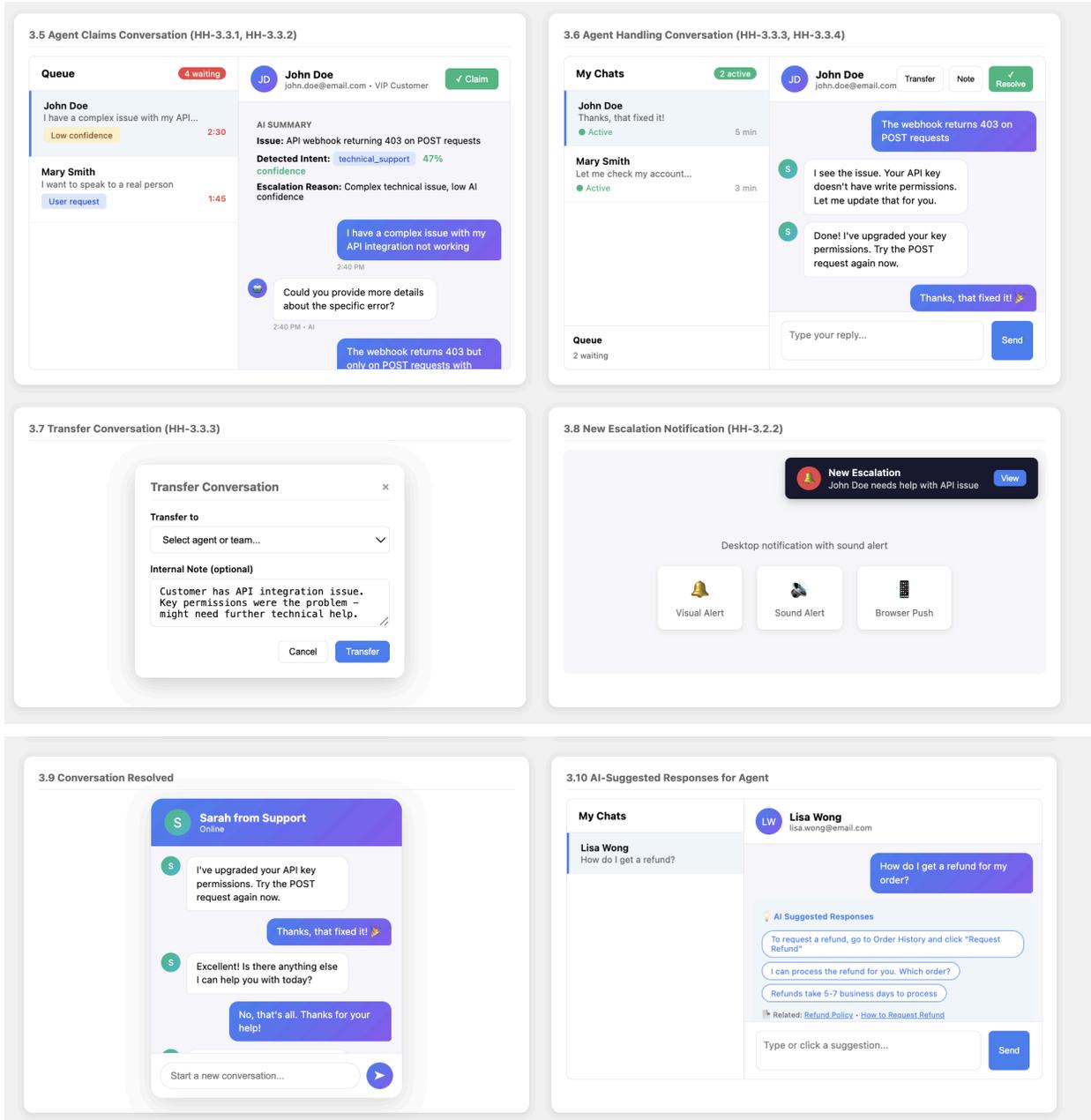
3.4 Escalation Queue - Agent View (HH-3.2.1, HH-3.2.4)

An agent view interface showing a queue of customer conversations. The queue lists four customers with their issues, confidence levels, and wait times. A large blue arrow points to a selection area on the right.

Queue 4 waiting

John Doe I have a complex issue with my API... Low confidence 2:30
Mary Smith I want to speak to a real person User request 1:45
Robert Chen This is ridiculous, I've been trying... Frustrated 1:20
Lisa Wong Can someone help me with refund? 3 fallbacks 0:45

Select a conversation from the queue
4 customers waiting for assistance



```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Human Handoff - Module 3 Screens</title>
  <style>
    *{margin:0;padding:0;box-sizing:border-box}
    body{font-family:-apple-system,BlinkMacSystemFont,'Segoe
    UI',sans-serif;background:#f0f0f0;min-height:100vh;padding:20px}
    .page-header{text-align:center;margin-bottom:30px}
  
```

```

.page-header h1{font-size:24px;color:#1a1a2e;margin-bottom:8px}
.page-header p{color:#666;font-size:14px}

.screens-grid{display:grid;grid-template-columns:repeat(auto-fit,minmax(480px,1fr));gap:30px;max-width:1400px;margin:0 auto}
  .screen-card{background:#fff;border-radius:12px;padding:20px;box-shadow:0 2px 8px rgba(0,0,0,0.1)}
  .screen-card
h3{font-size:14px;color:#666;margin-bottom:12px;padding-bottom:8px;border-bottom:1px solid #eee}

  /* Chat Widget Mock */
  .widget-mock{width:340px;margin:0 auto;background:#fff;border-radius:16px;box-shadow:0 8px 32px rgba(0,0,0,0.15);overflow:hidden}

  .widget-header{background:linear-gradient(135deg,#3b82f6,#8b5cf6);color:#fff;padding:14px 18px;display:flex;align-items:center;gap:12px}
  .widget-header
  .avatar{width:36px;height:36px;background:rgba(255,255,255,0.2);border-radius:50%;display:flex;align-items:center;justify-content:center;font-size:18px}
  .widget-header h4{font-size:15px}
  .widget-header p{font-size:11px;opacity:0.9}

  .widget-messages{padding:14px;background:#f8f9fa;min-height:280px;max-height:280px;overflow-y:auto}
  .widget-input{padding:12px;background:#fff;border-top:1px solid #e5e7eb;display:flex;gap:8px}
  .widget-input input{flex:1;border:1px solid #e5e7eb;border-radius:20px;padding:8px 14px;font-size:13px}
  .widget-input
  button{width:36px;height:36px;border-radius:50%;background:linear-gradient(135deg,#3b82f6,#8b5cf6);border:none;color:#fff;font-size:16px}

  .msg{margin-bottom:10px;display:flex;gap:8px}
  .msg.bot{justify-content:flex-start}
  .msg.user{justify-content:flex-end}
  .msg
  .avatar{width:26px;height:26px;border-radius:50%;background:linear-gradient(135deg,#3b82f6,#8b5cf6);display:flex;align-items:center;justify-content:center;font-size:11px;color:#fff;flex-shrink:0}
  .msg .avatar.agent{background:linear-gradient(135deg,#10b981,#06b6d4)}
  .msg .bubble{max-width:220px;padding:9px 13px;border-radius:12px;font-size:13px;line-height:1.4}

```

```

    .msg.bot .bubble{background:#fff;border:1px solid #e5e7eb;border-radius:12px 12px 12px
4px}
    .msg.user
.bubble{background:linear-gradient(135deg,#3b82f6,#8b5cf6);color:#fff;border-radius:12px 12px
4px 12px}
    .msg .time{font-size:9px;color:#999;margin-top:3px}

.system-msg{text-align:center;font-size:11px;color:#666;padding:8px;background:#fff;border-radi
us:8px;margin:10px 0}
    .system-msg.highlight{background:#fef3c7;color:#92400e}

/* Agent Interface */
.agent-layout{display:flex;height:420px;border-radius:8px;overflow:hidden;border:1px solid
#e5e7eb}
    .agent-sidebar{width:280px;background:#fff;border-right:1px solid
#e5e7eb;display:flex;flex-direction:column}
    .agent-sidebar-header{padding:14px 16px;border-bottom:1px solid
#e5e7eb;display:flex;justify-content:space-between;align-items:center}
    .agent-sidebar-header h4{font-size:14px}
    .queue-badge{background:#ef4444;color:#fff;font-size:11px;padding:2px
8px;border-radius:10px}
    .queue-list{flex:1;overflow-y:auto}
    .queue-item{padding:12px 16px;border-bottom:1px solid #f0f0f0;cursor:pointer}
    .queue-item:hover{background:#f8f9fa}
    .queue-item.active{background:#eff6ff;border-left:3px solid #3b82f6}
    .queue-item .name{font-weight:600;font-size:13px;margin-bottom:2px}
    .queue-item
.preview{font-size:12px;color:#666;white-space:nowrap;overflow:hidden;text-overflow:ellipsis}
    .queue-item
.meta{display:flex;justify-content:space-between;margin-top:6px;font-size:11px;color:#999}
    .wait-time{color:#ef4444;font-weight:600}

    .agent-main{flex:1;display:flex;flex-direction:column;background:#f8f9fa}
    .agent-header{padding:12px 16px;background:#fff;border-bottom:1px solid
#e5e7eb;display:flex;justify-content:space-between;align-items:center}
    .agent-header .customer-info{display:flex;align-items:center;gap:10px}
    .agent-header
.avatar{width:36px;height:36px;border-radius:50%;background:linear-gradient(135deg,#3b82f6,
#8b5cf6);display:flex;align-items:center;justify-content:center;color:#fff;font-size:13px}
    .agent-header h4{font-size:14px}
    .agent-header p{font-size:11px;color:#666}
    .agent-actions{display:flex;gap:8px}

```

```
.agent-messages{flex:1;padding:16px;overflow-y:auto}
.agent-input{padding:12px 16px;background:#fff;border-top:1px solid
#e5e7eb;display:flex;gap:10px}
.agent-input textarea{flex:1;border:1px solid
#e5e7eb;border-radius:8px;padding:10px;font-size:13px;resize:none;font-family:inherit}
```

```
.btn{padding:7px 14px;border-radius:6px;font-size:12px;cursor:pointer;border:none}
.btn-primary{background:#3b82f6;color:#fff}
.btn-secondary{background:#fff;border:1px solid #e5e7eb}
.btn-success{background:#10b981;color:#fff}
.btn-danger{background:#ef4444;color:#fff}
.btn-sm{padding:5px 10px;font-size:11px}
```

```
/* AI Context Panel */
```

```
.ai-context{background:#f8f9fa;border-radius:8px;padding:12px;margin-bottom:12px;font-size:12
px}
.ai-context h5{font-size:11px;color:#666;margin-bottom:8px;text-transform:uppercase}
.ai-context .intent-tag{background:#dbeafe;color:#1d4ed8;padding:3px
8px;border-radius:4px;font-size:11px;display:inline-block;margin-right:6px}
.ai-context .confidence{color:#10b981;font-weight:600}
```

```
/* Escalation Reasons */
```

```
.escalation-badge{display:inline-flex;align-items:center;gap:4px;padding:4px
10px;border-radius:4px;font-size:11px;margin-right:6px;margin-bottom:6px}
.escalation-badge.low-conf{background:#fef3c7;color:#92400e}
.escalation-badge.user-req{background:#dbeafe;color:#1d4ed8}
.escalation-badge.sentiment{background:#fee2e2;color:#dc2626}
```

```
/* Notification */
```

```
.notification{position:absolute;top:10px;right:10px;background:#1a1a2e;color:#fff;padding:12px
16px;border-radius:8px;font-size:13px;display:flex;align-items:center;gap:10px;box-shadow:0
4px 12px rgba(0,0,0,0.2)}
.notification
.icon{width:32px;height:32px;background:#ef4444;border-radius:50%;display:flex;align-items:ce
nter;justify-content:center;font-size:16px}
```

```
/* Transfer Modal */
```

```
.modal{background:#fff;border-radius:12px;padding:20px;width:360px;box-shadow:0 8px
32px rgba(0,0,0,0.2)}
.modal h3{font-size:16px;margin-bottom:16px}
```

```
.modal-close{float:right;background:none;border:none;font-size:18px;cursor:pointer;color:#999}
```

```

.form-group{margin-bottom: 14px}
.form-group label{display:block;font-size: 12px;font-weight:600;margin-bottom:6px}
.form-group select,.form-group input,.form-group textarea{width: 100%;padding:9px
12px;border: 1px solid #e5e7eb;border-radius:6px;font-size: 13px}
.modal-actions{display:flex;gap: 10px;justify-content:flex-end;margin-top: 16px}

/* Status indicators */
.status-dot{width:8px;height:8px;border-radius:50%;display:inline-block;margin-right:6px}
.status-dot.online{background:#10b981}
.status-dot.busy{background:#f59e0b}
.status-dot.offline{background:#9ca3af}

/* Suggested Responses */
.suggestions{display:flex;flex-wrap:wrap;gap:6px;margin-top: 10px}
.suggestion{background:#fff;border: 1px solid #3b82f6;color:#3b82f6;padding:5px
12px;border-radius: 16px;font-size: 11px;cursor:pointer}
.suggestion:hover{background:#eff6ff}
</style>
</head>
<body>
<div class="page-header">
  <h1>Module 3: Human Handoff Screens</h1>
  <p>HH-3.1 to HH-3.3 Requirements Coverage</p>
</div>

<div class="screens-grid">
  <!-- Screen 1: AI Escalation Trigger (Customer View) -->
  <div class="screen-card">
    <h3>3.1 AI Low Confidence Escalation (HH-3.1.1)</h3>
    <div class="widget-mock">
      <div class="widget-header">
        <div class="avatar"><img alt="AI avatar icon" data-bbox="380 660 400 680"/></div>
        <div><h4>Support Assistant</h4><p>Online</p></div>
      </div>
      <div class="widget-messages">
        <div class="msg user">
          <div><div class="bubble">I have a complex issue with my API integration not
working with your webhook system</div></div>
        </div>
        <div class="msg bot">
          <div class="avatar"><img alt="AI avatar icon" data-bbox="400 825 420 845"/></div>
          <div class="bubble">I understand you're having an API integration issue.
Could you provide more details about the specific error?</div>

```

```
    </div>
  </div>
  <div class="msg user">
    <div><div class="bubble">The webhook returns 403 but only on POST requests
with custom headers and it started after your last update</div></div>
  </div>
  <div class="system-msg highlight">
    ⚠️ AI confidence low - connecting to specialist
  </div>
  <div class="msg bot">
    <div class="avatar">🤖</div>
    <div>
      <div class="bubble">This seems like a technical issue that needs specialist
attention. Let me connect you with our technical team right away. 🛠️</div>
    </div>
  </div>
  </div>
  <div class="widget-input">
    <input type="text" placeholder="Type a message...">
    <button>></button>
  </div>
</div>
</div>
```

```
<!-- Screen 2: User Requests Human -->
<div class="screen-card">
  <h3>3.2 Customer Requests Human (HH-3.1.2)</h3>
  <div class="widget-mock">
    <div class="widget-header">
      <div class="avatar">🤖</div>
      <div><h4>Support Assistant</h4><p>Online</p></div>
    </div>
    <div class="widget-messages">
      <div class="msg bot">
        <div class="avatar">🤖</div>
        <div><div class="bubble">Hi! How can I help you today?</div></div>
      </div>
      <div class="msg user">
        <div><div class="bubble">I want to speak to a real person please</div></div>
      </div>
      <div class="msg bot">
        <div class="avatar">🤖</div>
      </div>
    </div>
  </div>
</div>
```

```
    <div class="bubble">Of course! I'll connect you with a team member right  
away. Please hold for just a moment. 🙋 </div>
```

```
  </div>
```

```
</div>
```

```
<div class="system-msg">
```

```
  Connecting you to an available agent...
```

```
</div>
```

```
<div style="text-align:center;padding:20px">
```

```
  <div style="width:40px;height:40px;border:3px solid  
#e5e7eb;border-top-color:#3b82f6;border-radius:50%;margin:0 auto;animation:spin 1s linear  
infinite"></div>
```

```
  <p style="font-size:12px;color:#666;margin-top:10px">Finding the best agent for  
you...</p>
```

```
</div>
```

```
</div>
```

```
<div class="widget-input">
```

```
  <input type="text" placeholder="Type a message..." disabled>
```

```
  <button disabled style="opacity:0.5">> </button>
```

```
</div>
```

```
</div>
```

```
<style>@keyframes spin{to{transform:rotate(360deg)}}</style>
```

```
</div>
```

```
<!-- Screen 3: Agent Connected (Customer View) -->
```

```
<div class="screen-card">
```

```
  <h3>3.3 Agent Connected - Customer View (HH-3.2.3)</h3>
```

```
  <div class="widget-mock">
```

```
    <div class="widget-header">
```

```
      <div class="avatar"
```

```
style="background:linear-gradient(135deg,#10b981,#06b6d4)">S</div>
```

```
      <div><h4>Sarah from Support</h4><p><span class="status-dot  
online"></span>Online</p></div>
```

```
    </div>
```

```
  <div class="widget-messages">
```

```
    <div class="msg bot">
```

```
      <div class="avatar">🤖</div>
```

```
      <div><div class="bubble">Connecting you with a team member...</div></div>
```

```
    </div>
```

```
  <div class="system-msg">
```

```
    ✓ Sarah has joined the chat
```

```
</div>
```

```
<div class="msg bot">
```

```
  <div class="avatar agent">S</div>
```

```
</div>
```

```
        <div class="bubble">Hi there! I'm Sarah from the support team. I can see you
were having some trouble with our AI assistant. How can I help you today?</div>
        <div class="time">2:45 PM</div>
    </div>
</div>
<div class="msg user">
    <div>
        <div class="bubble">Yes, I have a billing issue that the bot couldn't
resolve</div>
        <div class="time" style="text-align:right">2:45 PM</div>
    </div>
</div>
<div class="msg bot">
    <div class="avatar agent">S</div>
    <div>
        <div class="bubble">I'd be happy to help with that! Let me pull up your
account. Could you confirm your email address?</div>
        <div class="time">2:46 PM</div>
    </div>
</div>
</div>
<div class="widget-input">
    <input type="text" placeholder="Type a message...">
    <button>></button>
</div>
</div>
</div>
```

<!-- Screen 4: Agent Queue (Agent View) -->

```
<div class="screen-card">
    <h3>3.4 Escalation Queue - Agent View (HH-3.2.1, HH-3.2.4)</h3>
    <div class="agent-layout">
        <div class="agent-sidebar">
            <div class="agent-sidebar-header">
                <h4>Queue</h4>
                <span class="queue-badge">4 waiting</span>
            </div>
            <div class="queue-list">
                <div class="queue-item">
                    <div class="name">John Doe</div>
                    <div class="preview">I have a complex issue with my API...</div>
                    <div class="meta">
                        <span class="escalation-badge low-conf">Low confidence</span>
                        <span class="wait-time">2:30</span>
                    </div>
                </div>
            </div>
        </div>
    </div>
</div>
```

```

    </div>
  </div>
  <div class="queue-item">
    <div class="name">Mary Smith</div>
    <div class="preview">I want to speak to a real person</div>
    <div class="meta">
      <span class="escalation-badge user-req">User request</span>
      <span class="wait-time">1:45</span>
    </div>
  </div>
  <div class="queue-item">
    <div class="name">Robert Chen</div>
    <div class="preview">This is ridiculous, I've been trying...</div>
    <div class="meta">
      <span class="escalation-badge sentiment">Frustrated</span>
      <span class="wait-time">1:20</span>
    </div>
  </div>
  <div class="queue-item">
    <div class="name">Lisa Wong</div>
    <div class="preview">Can someone help me with refund?</div>
    <div class="meta">
      <span class="escalation-badge low-conf">3 fallbacks</span>
      <span class="wait-time">0:45</span>
    </div>
  </div>
  </div>
  <div class="agent-main">
    <div
      style="display:flex;align-items:center;justify-content:center;height:100%;color:#999;flex-direction
      :column;gap:10px">
      <div style="font-size:48px">👤</div>
      <p>Select a conversation from the queue</p>
      <p style="font-size:12px">4 customers waiting for assistance</p>
    </div>
  </div>
  </div>
  </div>
  </div>
  <!-- Screen 5: Agent Claiming Conversation -->
  <div class="screen-card">
    <h3>3.5 Agent Claims Conversation (HH-3.3.1, HH-3.3.2)</h3>
    <div class="agent-layout">

```

```
<div class="agent-sidebar">
  <div class="agent-sidebar-header">
    <h4>Queue</h4>
    <span class="queue-badge">4 waiting</span>
  </div>
  <div class="queue-list">
    <div class="queue-item active">
      <div class="name">John Doe</div>
      <div class="preview">I have a complex issue with my API...</div>
      <div class="meta">
        <span class="escalation-badge low-conf">Low confidence</span>
        <span class="wait-time">2:30</span>
      </div>
    </div>
    <div class="queue-item">
      <div class="name">Mary Smith</div>
      <div class="preview">I want to speak to a real person</div>
      <div class="meta">
        <span class="escalation-badge user-req">User request</span>
        <span class="wait-time">1:45</span>
      </div>
    </div>
  </div>
  <div class="agent-main">
    <div class="agent-header">
      <div class="customer-info">
        <div class="avatar">JD</div>
        <div>
          <h4>John Doe</h4>
          <p>john.doe@email.com • VIP Customer</p>
        </div>
      </div>
      <div class="agent-actions">
        <button class="btn btn-success">✓ Claim</button>
      </div>
    </div>
    <div class="agent-messages" style="padding:12px">
      <div class="ai-context">
        <h5>AI Summary</h5>
        <p style="margin-bottom:8px"><strong>Issue:</strong> API webhook
returning 403 on POST requests</p>
```

<p style="margin-bottom:8px">Detected Intent: technical_support 47% confidence</p>

<p>Escalation Reason: Complex technical issue, low AI confidence</p>

</div>

<div class="msg user">

<div><div class="bubble">I have a complex issue with my API integration not working</div><div class="time">2:40 PM</div></div>

</div>

<div class="msg bot">

<div class="avatar">🤖</div>

<div><div class="bubble">Could you provide more details about the specific error?</div><div class="time">2:40 PM • AI</div></div>

</div>

<div class="msg user">

<div><div class="bubble">The webhook returns 403 but only on POST requests with custom headers</div><div class="time">2:41 PM</div></div>

</div>

</div>

</div>

</div>

</div>

<!-- Screen 6: Active Conversation with Agent -->

<div class="screen-card">

<h3>3.6 Agent Handling Conversation (HH-3.3.3, HH-3.3.4)</h3>

<div class="agent-layout">

<div class="agent-sidebar">

<div class="agent-sidebar-header">

<h4>My Chats</h4>

2 active

</div>

<div class="queue-list">

<div class="queue-item active">

<div class="name">John Doe</div>

<div class="preview">Thanks, that fixed it!</div>

<div class="meta">● Active5 min</div>

</div>

<div class="queue-item">

<div class="name">Mary Smith</div>

<div class="preview">Let me check my account...</div>

```

        <div class="meta"><span style="color:#10b981">● Active</span><span>3
min</span></div>
    </div>
</div>
<div style="padding:12px;border-top:1px solid #e5e7eb">
    <h4 style="font-size:12px;margin-bottom:8px">Queue</h4>
    <p style="font-size:11px;color:#666">2 waiting</p>
</div>
</div>
<div class="agent-main">
    <div class="agent-header">
        <div class="customer-info">
            <div class="avatar">JD</div>
            <div>
                <h4>John Doe</h4>
                <p>john.doe@email.com</p>
            </div>
        </div>
        <div class="agent-actions">
            <button class="btn btn-secondary btn-sm">Transfer</button>
            <button class="btn btn-secondary btn-sm">Note</button>
            <button class="btn btn-success btn-sm">✓ Resolve</button>
        </div>
    </div>
    <div class="agent-messages" style="padding:12px">
        <div class="msg user">
            <div><div class="bubble">The webhook returns 403 on POST
requests</div></div>
        </div>
        <div class="msg bot">
            <div class="avatar agent">S</div>
            <div><div class="bubble">I see the issue. Your API key doesn't have write
permissions. Let me update that for you.</div></div>
        </div>
        <div class="msg bot">
            <div class="avatar agent">S</div>
            <div><div class="bubble">Done! I've upgraded your key permissions. Try the
POST request again now.</div></div>
        </div>
        <div class="msg user">
            <div><div class="bubble">Thanks, that fixed it! 🎉</div></div>
        </div>
    </div>
    <div class="agent-input">

```

```

        <textarea rows="2" placeholder="Type your reply..."></textarea>
        <button class="btn btn-primary">Send</button>
    </div>
</div>
</div>
</div>
</div>

<!-- Screen 7: Transfer Modal -->
<div class="screen-card">
    <h3>3.7 Transfer Conversation (HH-3.3.3)</h3>
    <div style="display:flex;justify-content:center;padding:20px">
        <div class="modal">
            <button class="modal-close">x</button>
            <h3>Transfer Conversation</h3>
            <div class="form-group">
                <label>Transfer to</label>
                <select>
                    <option value="">Select agent or team...</option>
                    <optgroup label="Agents">
                        <option>● Mike Johnson (Available)</option>
                        <option>● Emily Davis (Available)</option>
                        <option>● Tom Wilson (Busy - 2 chats)</option>
                    </optgroup>
                    <optgroup label="Teams">
                        <option>Technical Support</option>
                        <option>Billing Team</option>
                        <option>Sales Team</option>
                    </optgroup>
                </select>
            </div>
            <div class="form-group">
                <label>Internal Note (optional)</label>
                <textarea rows="3" placeholder="Add context for the next agent...">Customer
has API integration issue. Key permissions were the problem - might need further technical
help.</textarea>
            </div>
            <div class="modal-actions">
                <button class="btn btn-secondary">Cancel</button>
                <button class="btn btn-primary">Transfer</button>
            </div>
        </div>
    </div>
</div>
</div>
</div>

```

```

<!-- Screen 8: Agent Notification -->
<div class="screen-card">
  <h3>3.8 New Escalation Notification (HH-3.2.2)</h3>
  <div style="position:relative;height:300px;background:#f8f9fa;border-radius:8px">
    <div class="notification">
      <div class="icon">🔔</div>
      <div>
        <div style="font-weight:600;margin-bottom:2px">New Escalation</div>
        <div style="font-size:12px;opacity:0.8">John Doe needs help with API
issue</div>
      </div>
      <button class="btn btn-sm"
style="background:#3b82f6;color:#fff;margin-left:10px">View</button>
    </div>
    <div style="text-align:center;padding-top:120px">
      <p style="font-size:13px;color:#666">Desktop notification with sound alert</p>
      <div style="display:flex;justify-content:center;gap:20px;margin-top:20px">
        <div style="background:#fff;padding:16px 24px;border-radius:8px;box-shadow:0
2px 8px rgba(0,0,0,0.1)">
          <div style="font-size:24px;margin-bottom:8px">🔔</div>
          <div style="font-size:12px;color:#666">Visual Alert</div>
        </div>
        <div style="background:#fff;padding:16px 24px;border-radius:8px;box-shadow:0
2px 8px rgba(0,0,0,0.1)">
          <div style="font-size:24px;margin-bottom:8px">🔊</div>
          <div style="font-size:12px;color:#666">Sound Alert</div>
        </div>
        <div style="background:#fff;padding:16px 24px;border-radius:8px;box-shadow:0
2px 8px rgba(0,0,0,0.1)">
          <div style="font-size:24px;margin-bottom:8px">📱</div>
          <div style="font-size:12px;color:#666">Browser Push</div>
        </div>
      </div>
    </div>
  </div>
</div>
</div>
</div>
</div>

<!-- Screen 9: Conversation Resolved -->
<div class="screen-card">
  <h3>3.9 Conversation Resolved</h3>
  <div class="widget-mock">
    <div class="widget-header">
      <div class="avatar"
style="background:linear-gradient(135deg,#10b981,#06b6d4)">S</div>

```

```

    <div><h4>Sarah from Support</h4><p>Online</p></div>
  </div>
  <div class="widget-messages">
    <div class="msg bot">
      <div class="avatar agent">S</div>
      <div><div class="bubble">I've upgraded your API key permissions. Try the
POST request again now.</div></div>
    </div>
    <div class="msg user">
      <div><div class="bubble">Thanks, that fixed it! 🎉</div></div>
    </div>
    <div class="msg bot">
      <div class="avatar agent">S</div>
      <div><div class="bubble">Excellent! Is there anything else I can help you with
today?</div></div>
    </div>
    <div class="msg user">
      <div><div class="bubble">No, that's all. Thanks for your help!</div></div>
    </div>
    <div class="msg bot">
      <div class="avatar agent">S</div>
      <div><div class="bubble">You're welcome! Have a great day! 🙌</div></div>
    </div>
    <div class="system-msg" style="background:#dcfce7;color:#166534">
      ✓ Conversation resolved
    </div>
    <div style="text-align:center;padding:10px">
      <p style="font-size:12px;color:#666;margin-bottom:8px">How was your
experience?</p>
      <div style="font-size:24px">😞 😐 😊 😄 🥰</div>
    </div>
    <div class="widget-input">
      <input type="text" placeholder="Start a new conversation...">
      <button>></button>
    </div>
  </div>
</div>

```

<!-- Screen 10: Suggested Responses -->

```

<div class="screen-card">
  <h3>3.10 AI-Suggested Responses for Agent</h3>
  <div class="agent-layout" style="height:380px">
    <div class="agent-sidebar" style="width:240px">

```

```

<div class="agent-sidebar-header"><h4>My Chats</h4></div>
<div class="queue-list">
  <div class="queue-item active">
    <div class="name">Lisa Wong</div>
    <div class="preview">How do I get a refund?</div>
  </div>
</div>
<div class="agent-main">
  <div class="agent-header">
    <div class="customer-info">
      <div class="avatar">LW</div>
      <div><h4>Lisa Wong</h4><p>lisa.wong@email.com</p></div>
    </div>
  </div>
  <div class="agent-messages" style="padding:12px">
    <div class="msg user">
      <div><div class="bubble">How do I get a refund for my order?</div></div>
    </div>
    <div
style="background:#eff6ff;border-radius:8px;padding:12px;margin-top:10px">
      <div
style="font-size:11px;color:#3b82f6;font-weight:600;margin-bottom:8px">💡 AI Suggested
Responses</div>
      <div class="suggestions">
        <span class="suggestion">To request a refund, go to Order History and
click "Request Refund"</span>
        <span class="suggestion">I can process the refund for you. Which
order?</span>
        <span class="suggestion">Refunds take 5-7 business days to
process</span>
      </div>
      <div style="font-size:10px;color:#666;margin-top:8px">
        📄 Related: <a href="#" style="color:#3b82f6">Refund Policy</a> • <a
href="#" style="color:#3b82f6">How to Request Refund</a>
      </div>
    </div>
  </div>
  <div class="agent-input">
    <textarea rows="2" placeholder="Type or click a suggestion..."></textarea>
    <button class="btn btn-primary">Send</button>
  </div>
</div>
</div>

```

```
</div>  
</div>  
</body>  
</html>
```