

# IBM Watson Assistant

New Intent Impact Assessment: Oncology with YAVA

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## Business Impact Summary

**Objective:** Assess the impact of introducing a new "Oncology" intent in IBM Watson Assistant to enhance healthcare conversation capabilities with YAVA outbound routing integration.

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Components Impacted

High

Overall Impact Level

4-5 weeks

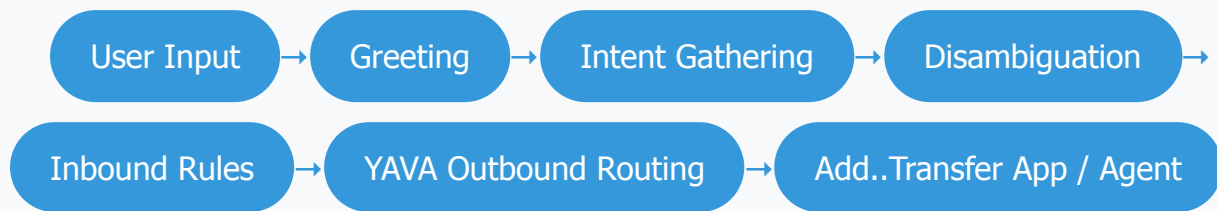
Implementation Timeline

0

Auth Components  
Affected



## Current Architecture Overview



### Key Components:

- 🤝 **Greeting Component:** Initial user interaction and welcome flow
- 🎯 **Intent Gathering:** Natural language understanding and intent classification
- ❓ **Disambiguation:** Clarification when multiple intents are detected
- 📁 **Inbound Rules:** Pre-processing and routing logic
- ⚙️ **YAVA Outbound Routing Rules:** Intelligent routing and workflow orchestration
- 👤 **Additional Transfer App / Agent:** Human handoff and escalation

## Greeting Component

### Low Impact

#### Changes Required:

- Update welcome message to include oncology services
- Add oncology-specific greeting variants
- Minimal configuration changes

**Effort:** 0.5 days

## Intent Gathering

### High Impact

#### Changes Required:

- Create new "Oncology" intent
- Define 50+ training examples
- Configure entities (cancer types, treatments)
- Update NLU model training

**Effort:** 5-7 days

## ? Disambiguation

### Medium Impact

#### Changes Required:

- Add oncology to disambiguation logic
- Update clarification prompts
- Configure intent confidence thresholds

**Effort:** 2-3 days

## Inbound Rules

### Medium Impact

#### Changes Required:

- Create routing rules for oncology intent
- Configure business hours validation
- Add priority handling logic (if any)
- Intent Sheet - JSON Rules Table - Impact (Add Entry)

**Effort:** 2-3 days

## YAVA Outbound Routing Rules

### High Impact

#### Changes Required:

- Configure oncology routing workflows
- Set up YAVA rule conditions for New Intent (Say Oncology)
- Define department-specific routing logic

## Additional Transfer App / Agent

### Medium Impact

#### Changes Required:

- Configure oncology specialist handoff
- Update escalation criteria
- Add fallback agent routing
- Holiday Hours Check

**Effort:** 2-3 days

- Create multi-step care workflows logic for Mapping Transfer

**Effort:** 4-6 days

#### **Business Scenario - ICM**

##### **Mapping:**

Map functional labels to ICM (Intelligent Contact Management) for the new Oncology intent: - Given sample Reference, changes based on ICMP Mapping rule

- **Functional Label:** "Oncology\_Care" → **ICM Queue:** ONCO\_SPECIALIST
  - **Functional Label:** "Cancer\_Consultation" → **ICM Queue:** ONCO\_CONSULT
  - **Functional Label:** "Treatment\_Inquiry" → **ICM Queue:** ONCO\_TREATMENT
  - **Functional Label:** "Emergency\_Oncology" → **ICM Queue:** ONCO\_URGENT
- Note: ICM mapping ensures proper routing to specialized oncology teams based on conversation context and urgency.*



#### **Technical Note:** Watson

Assistant uses callTransfer action for agent handoff. Context variables to be passed:

- \$oncology\_specialty - Cancer type/specialty



## **User Journey Pin (Jpin)**

**Medium Impact**

### **Changes Required:**

- Update Journey Pin configuration for oncology flow
- Add oncology-specific journey tracking
- Configure milestone tracking for cancer care journey
- Update conversational flow artifacts
- Map patient touchpoints and care coordination steps




**Effort:** 1-2 days



## **Authentication Flow**

**No Impact**

### **Status:**

-  No authentication changes required
-  Existing security model applies
-  Current user roles sufficient

**Effort:** 0 days



**Artifact Updates:** Conversational flow diagrams and Journey Pin configurations require updates to reflect oncology care pathways.



# Technical Requirements & Configuration



## Watson Assistant Configuration

- **New Intent:** "oncology\_inquiry"
- **Entities:** @cancer\_type, @treatment\_option, @appointment\_type
- **Training Examples:** 50+ diverse examples
- **Dialog Nodes:** 15-20 new nodes



## Integration Points

- **API Integration:** Not Applicable
- **Agent Desk:** Specialist routing



## YAVA Configuration

- **Routing Rules:** Oncology department workflows
- **Conditional Logic:** Special Configuration routing
- **Workflow Orchestration:** Excel Sheet Outbound Rules
- **Priority Handling:** : Office Hours / Holiday



## Performance Considerations

- **Response Time:** <2 seconds target
- **Intent Confidence:** >80% threshold
- **Model Training:** Daily incremental updates
- **Fallback Rate:** <5% target



## Security & Compliance

- **HIPAA Compliance:** PHI handling protocols
- **Data Encryption:** End-to-end encryption
- **Audit Logging:** All interactions logged
- **Access Control:** Role-based permissions



## Unit Testing

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- Intent recognition accuracy (>90%)
- Entity extraction validation
- Dialog flow completeness
- Fallback scenario handling

**Duration:** 2 days



## Integration Testing

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- CRM system connectivity
- Agent routing functionality
- Appointment booking flow
- Knowledge base integration
- YAVA workflow validation

**Duration:** 3 days



## User Acceptance Testing

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- End-user conversation flows
- Medical terminology understanding
- User experience validation
- Accessibility compliance

**Duration:** 3 days



## Performance Testing

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- Response time validation
- Concurrent user handling
- System load testing
- Failover scenarios

**Duration:** 2 days

### **Phase 1: Immediate Actions**

- Engage medical experts for training data validation
- Begin collecting oncology-specific conversation examples
- Identify and engage with oncology department stakeholders
- Assess YAVA platform readiness and access requirements

### **Phase 2: Implementation**

- Implement gradual rollout strategy (10% → 50% → 100%)
- Establish monitoring dashboards for intent performance
- Set up YAVA integration testing environment

### **Phase 3: Optimization**

- Analyze conversation logs for improvement opportunities
- Continuous model training based on real user interactions
- Regular review meetings with medical team
- Optimize YAVA workflows based on usage patterns





# User Journey Pin (Jpin) & Artifact Updates



## Journey Pin Updates

Medium Impact

### Required Updates:

- Add oncology journey touchpoints
- Update patient interaction mapping
- Define specialty care pathways
- Configure appointment booking flows

**Effort:** 2-3 days



## Conversational Flow Artifacts

High Impact

### Artifacts to Update:

- Dialog flow diagrams
- Intent mapping documentation
- User story workflows
- Error handling scenarios
- Context variable documentation

**Effort:** 3-4 days



## Context Variables Framework

Medium Impact

### Variables to Document:

- \$oncology\_intent\_confidence / NA

**Effort:** 1-2 days



## Critical Artifact Notes

High Priority



### Mandatory Updates Required:

- **Journey Pin:** Update user journey mapping for oncology flows
- **Conversational Flow:** Revise dialog tree documentation
- **YAVA Integration:** Document new routing decisions
- **Additional Transfer App / Agent:** Update callTransfer action specifications

95%

Intent Recognition  
Accuracy

<2s

Average Response Time

<5%

Fallback Rate

90%

User Satisfaction Score

Metric	Current Baseline	Target	Measurement Method
Oncology Intent Accuracy	N/A (New)	95%	Watson Assistant Analytics
Successful Handoffs	85%	90%	Additional Transfer App / Agent Logs
YAVA Routing Success	N/A (New)	95%	YAVA Analytics Dashboard
User Abandonment Rate	12%	<10%	Conversation Analytics
Resolution Time	8 minutes	<6 minutes	End-to-end Flow Tracking