



As-Built – Phase 1 Deployment

For:

Red Roof Inn

July 10, 2023
Version 1.0

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Version History

V1.2

SL No:	Version Number	Date Modified	Author	Comments
1	V1.0	Initial version	Scott Taylor / Allison Bicker	Initial Version
2	V1.1	8/10/2023	Scott Taylor	Updated existing call flow diagrams; added new diagrams
3	V1.2	9/25/2023	Scott Taylor	Added Guest Relations Spanish updated call flow and related settings
4	V2.0	5/7/2024	Scott Taylor Derek Yiu Sidd Sankar Allison Bicker	Updates made during Phase 3.

Table 1 – Version History

1 Business Overview

1.1 Business Use Cases

Red Roof Inn has identified the following functional requirements for the voice system implementation. The Amazon Connect Instance includes Contact flows for the following applications:

- General Reservations (Gen Res) (English & Spanish) and Escalations
 - The General Reservations team makes up the largest group of agents (approximately 200 by Summer 2023).
 - They handle inbound calls from 800 numbers and all US domestic numbers, no international calls.
 - They do not handle direct calls, no DID's required.
 - Agents transfer to outside translators for other languages.
 - The Gen Res Escalations group handles escalations from both agents and direct external inbound calls. They also handle emails and calls for Disaster Management.
 - There are 136 TF numbers (13 are used for other skills, the rest are Gen Res).
 - 659 DID's are assigned to individual hotels, they come into the same flow but the Hotel name is provided to the agent when a call is received
 - No voicemail options for Gen Res; voicemail is enabled for Nextline queue.
 - JAWS scripts applicable for agents
- Auto Attendant (AA) (referred to as RediCall AA script)
 - Additional skill for some Gen Res agents
 - JAWS scripts planned for agents
- RediRewards
 - Additional skill for some Gen Res agents
 - Separate 800 number for booking with RediRewards
 - Options include making a reservation (handled by Gen Res) and assistance with RediRewards accounts (handled by some Gen Res agents with this skill)
 - JAWS scripts applicable for agents
- Groups and Escalations
 - Both Groups and Groups Escalations handle Inbound and outbound calls, voicemail enabled
- Guest Relations
 - Inbound and Outbound calls

- Emails and voicemails enabled
- Guest Relations escalations team handles VP Customer care calls (high priority) as well as emails
- Content & Connectivity
 - Handle incoming calls, email communications
 - Voicemails enabled for this team
- FIT
 - Inbound and Outbound calls
 - No emails / voicemail enabled
- Support
 - Inbound calls
 - Voicemails enabled for this team
- Disaster Management
 - Inbound calls
 - No emails / voicemail enabled
 - Calls handled at highest priority

1.2 Business Rules

1.2.1 Dynamic Greetings

Text to Speech (TTS) will be utilized for dynamic greetings for each location. If WAV files are determined to be required, Red Roof Inn provided the files.

1.2.2 Number Porting

As part of the migration, configuration of new DIDs and TFNs will be completed.

- Up to 3,000 numbers will be ported

Coordination assistance for number porting processes will be provided. Red Roof Inn is responsible for managing communication with current carrier(s) and AWS.

1.3 Voicemail

Voicemail will be enabled on certain call flows required by Red Roof Inn. Voicemails consist of .wav files and transcripts of the recorded message. There is not an interface to retrieve voicemails in scope. Some

of these groups do not have access to email in Outlook, instead a task is created with the attached .wav file and transcript and will be sent to the queue for review by the agents in each group.

The ability for a caller to playback their message or re-record a message will not be available in Phase 1.

Voicemail will be enabled for the following Queue/Skill groups, as referenced in **List of Skills_Red Roof Inn_Revised_15MAY23**.

Queue/Skill	Type	Routing Profile
Connectivity - VM	Voicemail	Connectivity
Content - VM	Voicemail	Content
Nextline - VM	Voicemail	GenRes Escalation
RFP VM	Voicemail	Groups
Groups -VM	Voicemail	Groups
Groups Escalation - V	Voicemail	Groups Escalation
Guest Relations - VM	Voicemail	Guest Relations
RRI Support VM	Voicemail	Support

1.4 Call Recording

All inbound and outbound calls will be recorded and stored in S3 along with call metadata. Recordings will be encrypted. A retention policy has been created to delete recordings after a specified period of time. *See section 3.10 for more details.*

1.5 Announce Estimated Wait Time (EWT)

Callers will be informed of their Estimated Wait Time (EWT) as a general time within one of three tiers:

- Less than 2 minutes
- Between 3 and 10 minutes
- Greater than 10 minutes

If the EWT is ≥ 2 minutes, the caller will be offered a call back option immediately or they can continue to hold.

After the caller has gone through a full cycle of hold messages, they will be offered the option to request a call back or remain in their position in queue. If applicable based on queue, the caller may also be offered the option to leave a voicemail.

The caller will confirm they would like to receive the call back from their caller ID or prompted to enter their 10-digit phone number, after 3 unsuccessful attempts they will be placed back in queue with no queued call back.

1.6 Call back – Call Back in Queue

When the caller requests a call back and they already have a call back in the queue, they will be informed that a call back is already scheduled, and the call will be disconnected. The call back will then occur when an agent is available.

1.7 Call Back – No agents available

If all agents are in an offline status for a specific queue, the caller will be prompted for a call back with no option to stay in queue. An email will be generated to alert Managers that no agents are available.

Email message:

Included call time, skill, and ANI:

"You are receiving this auto-generated email because a call came in during operational hours and no agents were skilled."

Email should be sent to:

- Shanna Wright – swright2@redroof.com
- Katie Henshaw – khenshaw@redroof.com
- Anitra Williams – amwilliams@redroof.com
- Janet Corder – jcorder@redroof.com
- Kelly Crump – kcrump@redroof.com
- Chris Gordon – cgordon@redroof.com

1.8 SMS Message

This section explains the process of sending SMS messages containing address, reservation, or cancellation details to customers using an AWS Lambda function integrated with Amazon Connect Contact Flows and Pinpoint.

The core component of this integration is an AWS Lambda function designed to send SMS messages.

The function retrieves necessary parameters such as the Pinpoint project (application) ID, the origination phone number (the sender's number), and the body of the message to be sent, along with the recipient's phone number. The AWS Lambda function is designed to be invoked by an Amazon Connect Contact Flow (For address RRI-IVR-Redicall-AAIVR).

The Contact Flow includes a step to invoke the AWS Lambda function, passing in detail such as the message content and the recipient's phone number as parameters.

Lambda Function Name: **redroof-ivr-send-sms**

It accepts two input parameters for operation:

messageToSend: The body of the SMS message intended for delivery.

sendToNumber: The recipient's phone number, essentially the customer's mobile number to which the SMS will be sent.

Given the absence of direct reservation and cancellation logic within our IVR, two contact flow modules have been developed to manage these functions. These modules are designed to be invoked immediately following the acquisition of a confirmation number for either a reservation or a cancellation. The following attributes must be configured:

For Cancellations: Set the attribute **cancellationNumber** with the relevant cancellation confirmation number.

For Reservations: set **ReservationNumber** to store the reservation confirmation number.

Below are the contact flow module names:

RRI-IVR-SendCancellationSMS

RRI-IVR-SendReservationSMS

1.9 Agent Email

Email to task functionality was implemented as an interim solution. Phase 2 includes a more robust SES solution.

When emails come into the mailboxes, they are forwarded appropriately to the team and a task is queued. Agents can then select the link in the task to open the email / Outlook webmail box. Once the email is handled, the task is closed. Tasks can be sent back to queue if they are rejected.

Current Emails Inbound/Outbound:

Queue/Skill	Type	Routing Profile	Email
-------------	------	-----------------	-------

Commission E-Mail - IB	Email	Connectivity	commission@redroof.com
RediPromise E-Mail - IB	Email	Content and Connectivity	redipromise@redroof.com
Disaster Management E-mail - IB	Disaster Email	Gen Res Escalation	disastermanagement@redroof.com
NextLine E-Mail - IB	Email	GenRes Escalation	nextline@redroof.com
SF Escalation E-Mail - IB	Email	GenRes Escalation	sfescalation@redroof.com
noreply-guestrelations - OB	Email	Guest Relation Escalation	noreply-guestrelations@redroof.com
RediRewards E-Mail - IB	Email	Guest Relations	reservations@redroof.com
Guest Relations E-Mail - IB	Email	Guest Relations	guestrelations@redroof.com
Guestin Email - IB	Email	Guest Relations	guestin@redroof.com
VP Customer Care	Email	Guest Relations Escalation	vpcustomercare@redroof.com
BBB Complaints	Email	Guest Relations Escalations	bbbcomplaints@redroof.com

1.10 Reporting

McIntosh supported Red Roof Inn with a reporting review and gap analysis.

- Reporting gap analysis and guidance
 - Identified critical data in existing reports and perform a gap analysis to ensure required data is present in reports from Amazon Connect
 - Proposed remediation activities for custom reporting or identify improvements to ETL process in the data pipeline.

- Document the data pipeline, including ETL processes

2 Call Flows

2.1 Prompts and Messages

2.1.1 Configuration

All audio prompts and messages will be played using Connect's text-to-speech facility. Prompts will be configured manually within the relevant blocks in the Connect call flows.

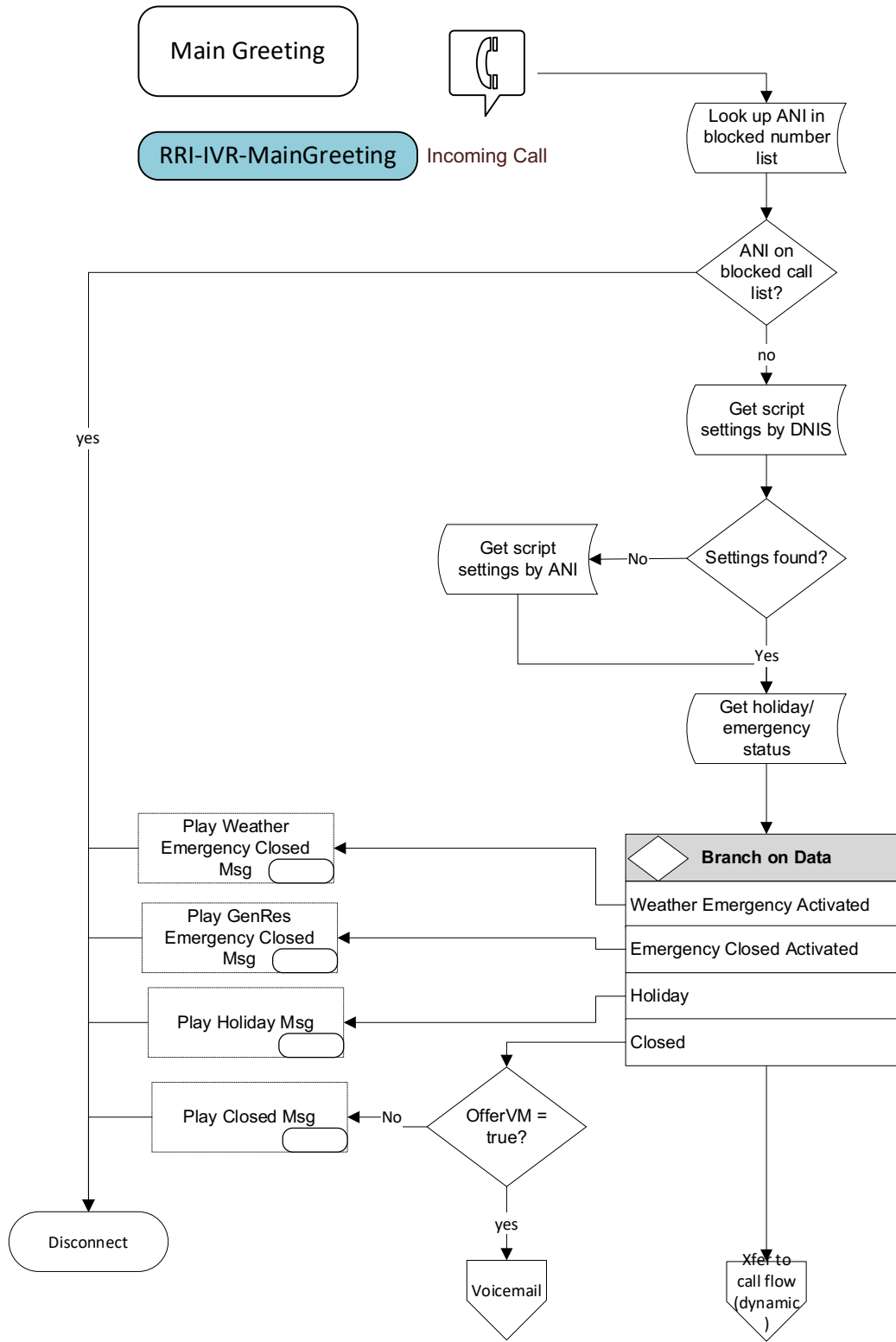
TTS prompt playback will be configured as follows:

- Language: English (en-US)
- Voice: Matthew
- Format: SSML

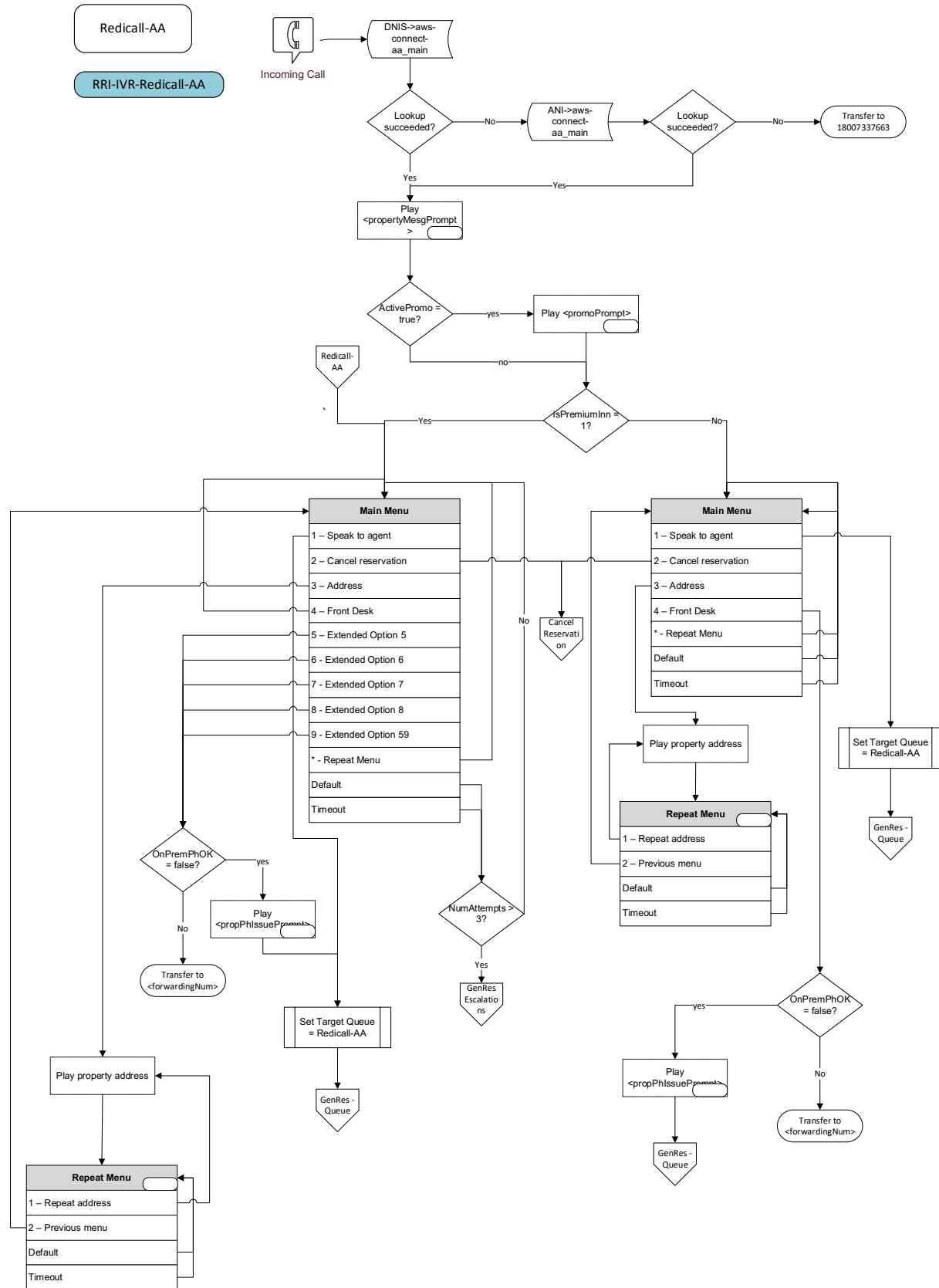
The exceptions to this will be the hold messages that are recorded by a "brand voice". Those include the hold messages for Gen Res and HTS.

2.2 Call Flow Diagrams

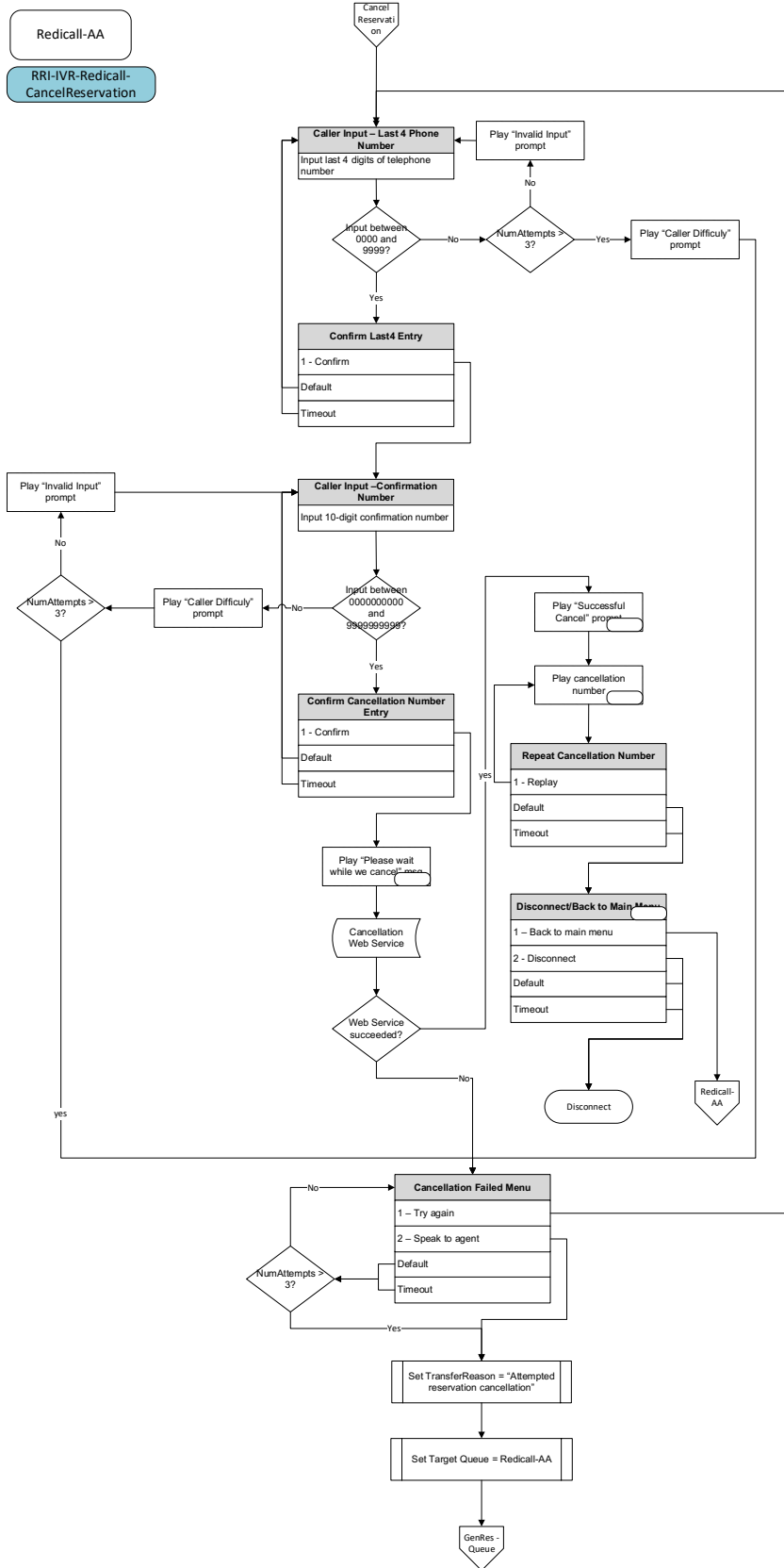
2.2.1 Main Greeting



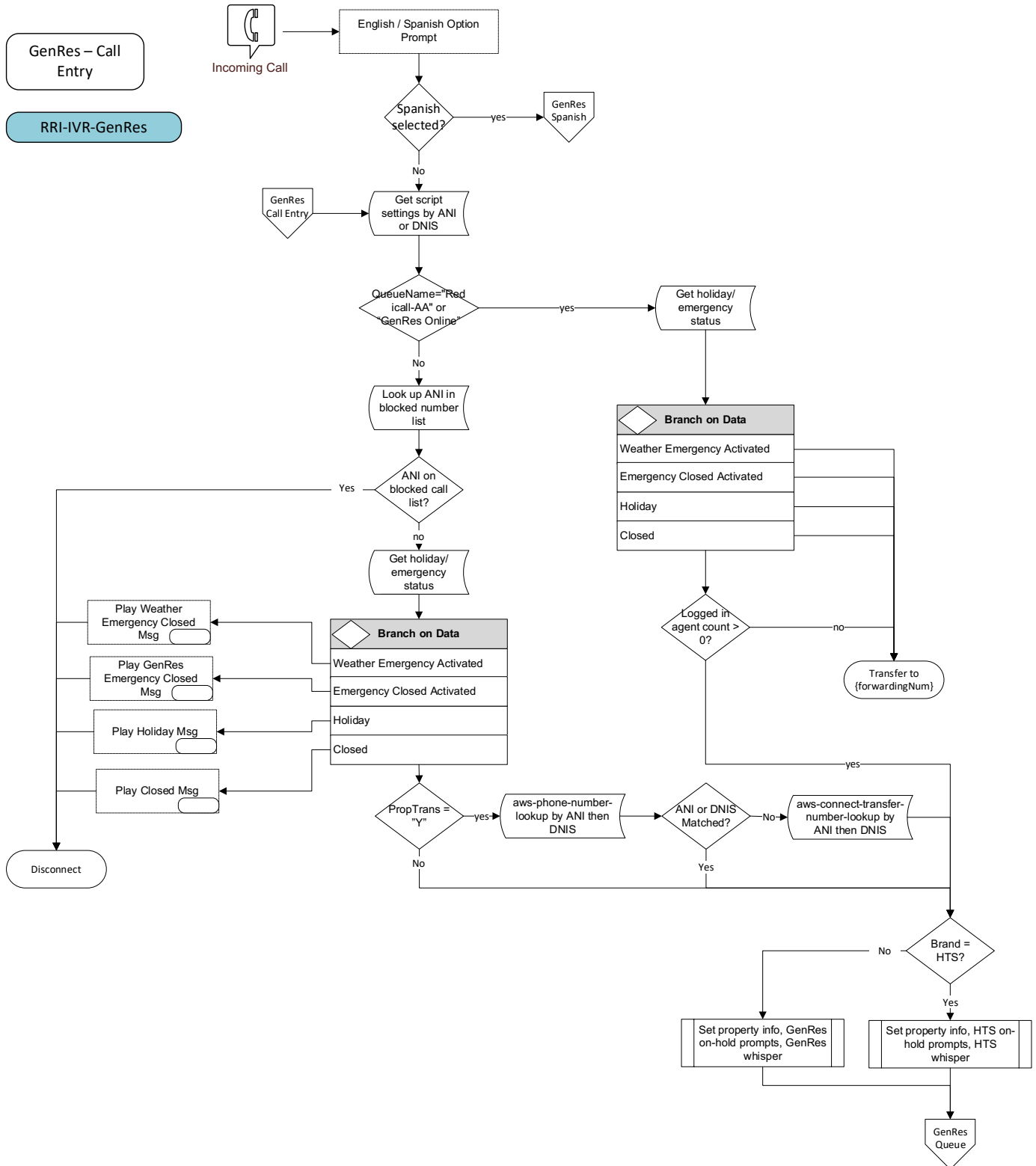
2.2.2 GenRes Redicall-AA



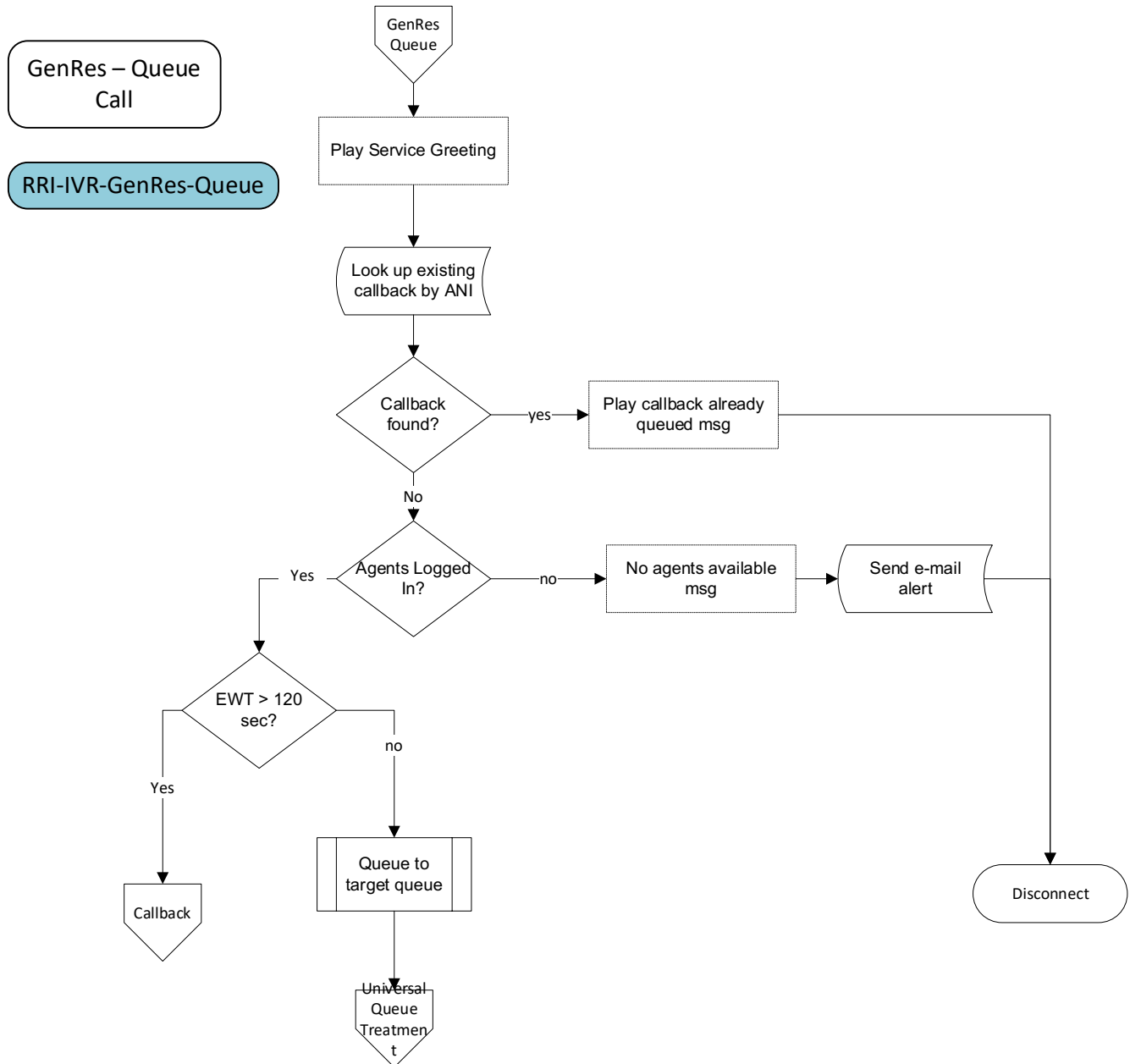
2.2.3 GenRes Redicall-AA Cancel Reservation



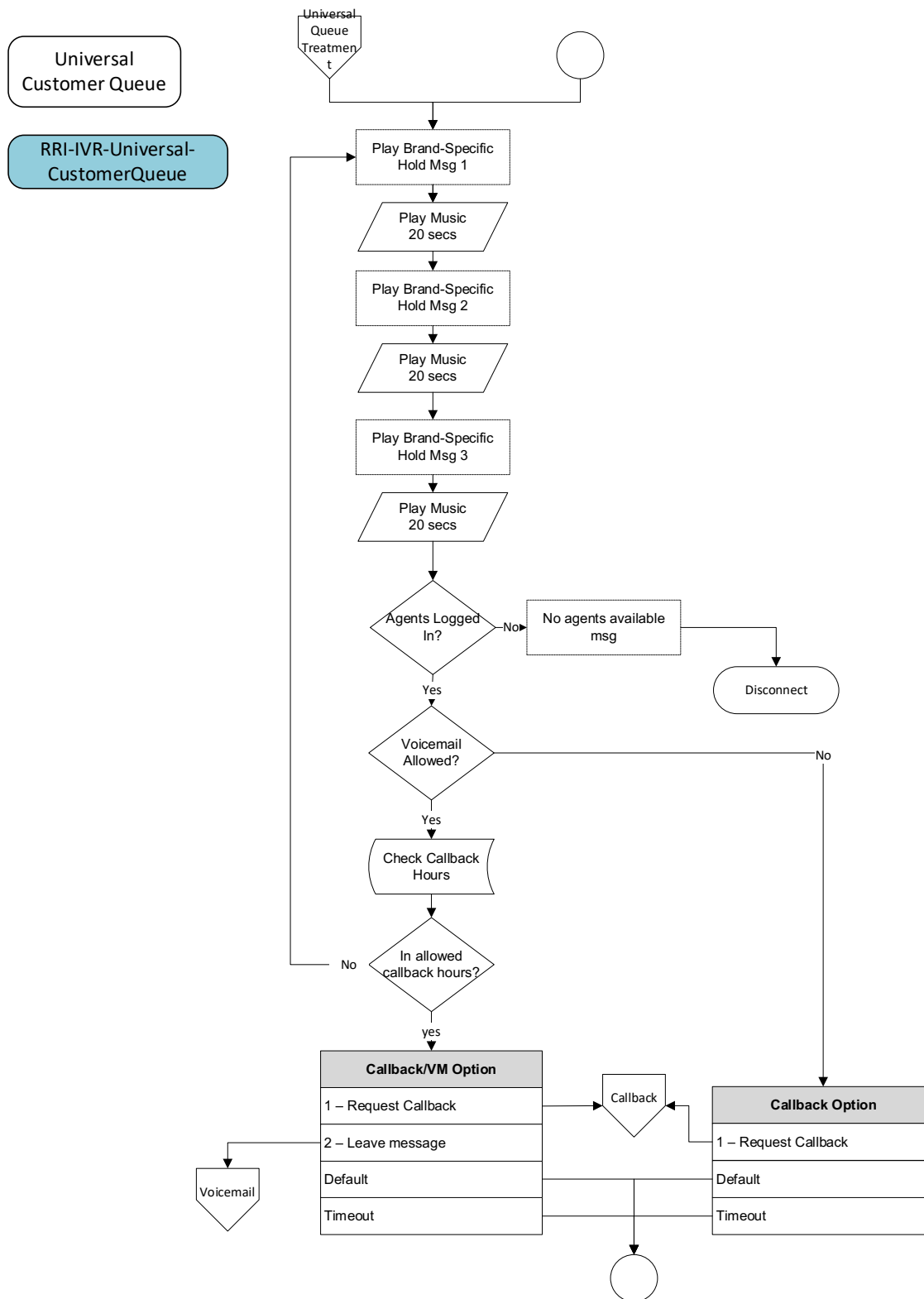
2.2.4 GenRes – Call Entry



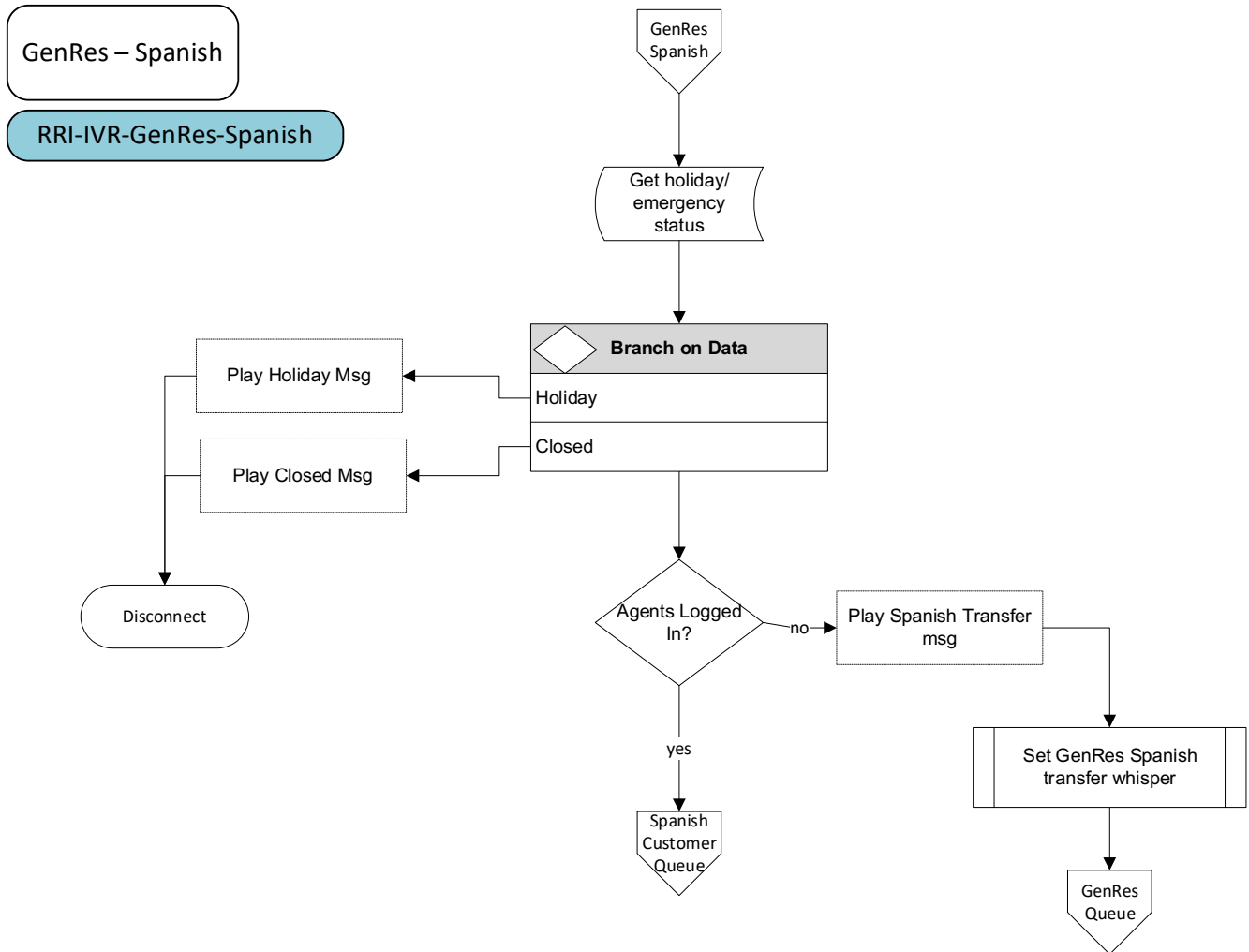
2.2.5 GenRes – Queue



2.2.6 Universal Customer Queue Treatment



2.2.7 GenRes – Spanish

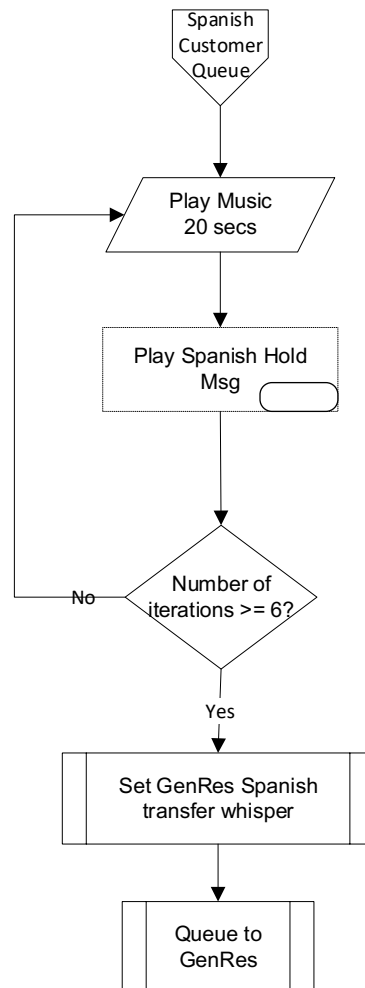


If no agents are available for Spanish Queue – an additional whisper will indicate it's a failover from the Spanish queue.

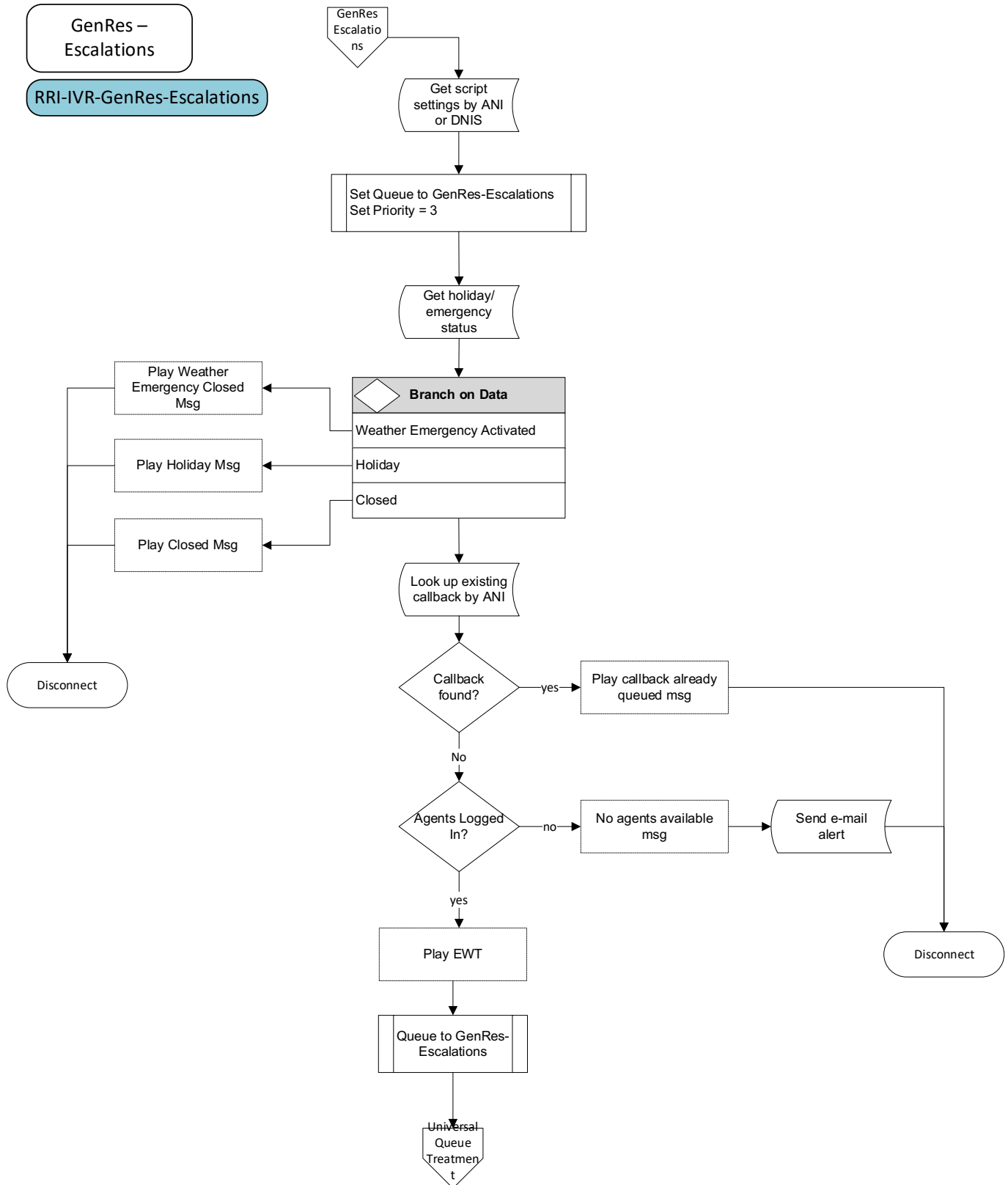
2.2.8 GenRes – Spanish Customer Queue

GenRes – Spanish
Customer Queue

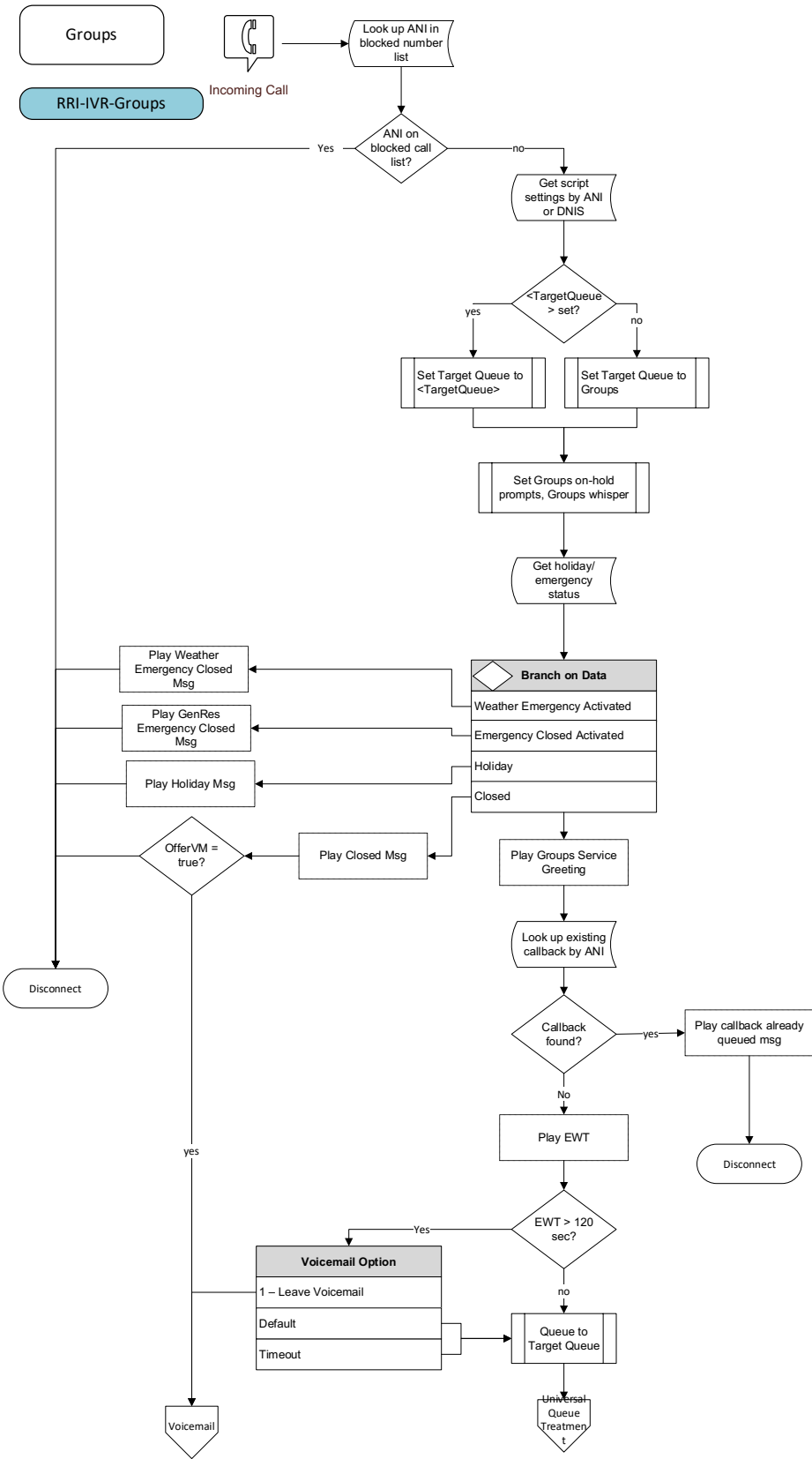
RRI-IVR-GenRes-Spanish-
CustomerQueue



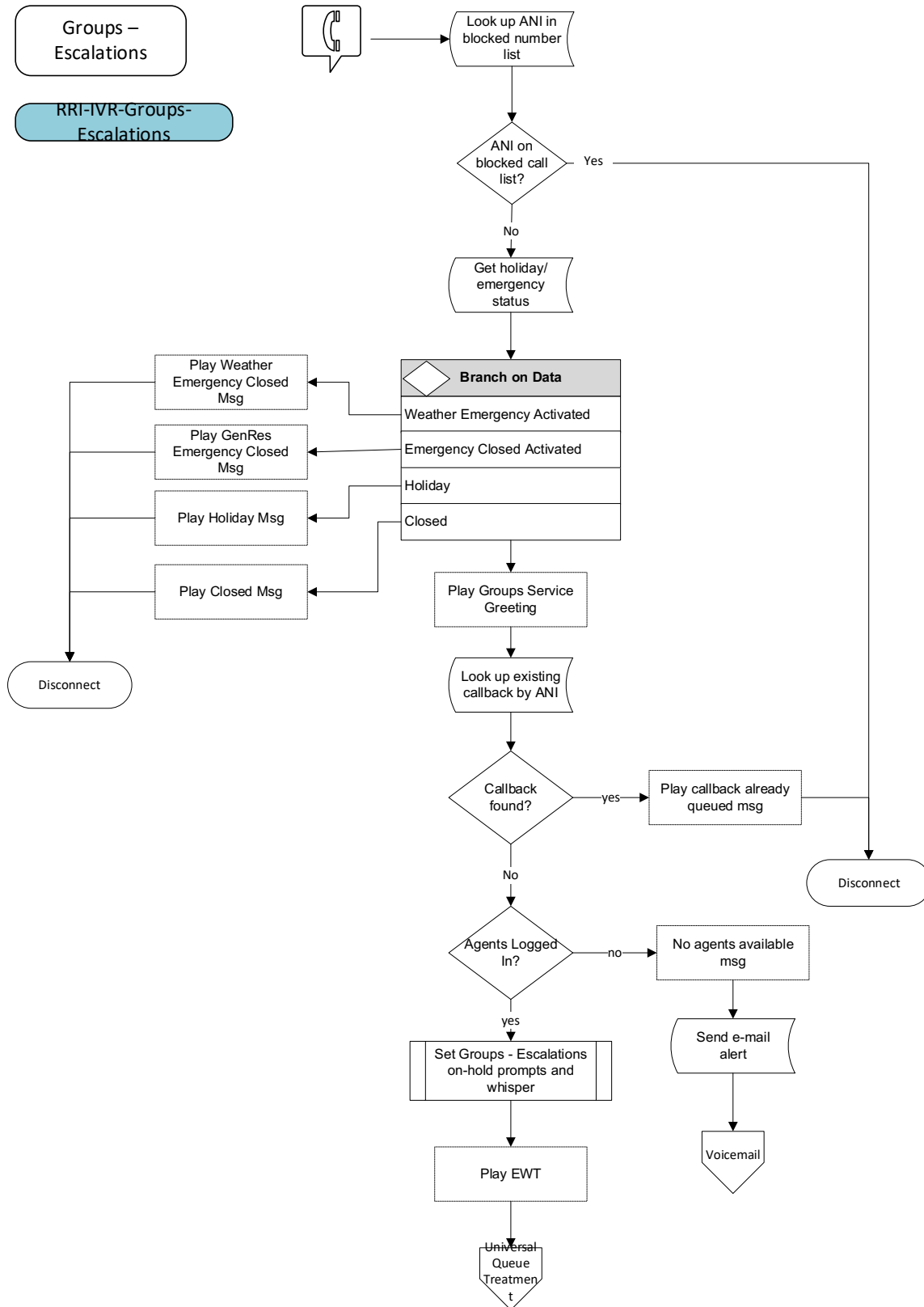
2.2.9 GenRes - Escalations



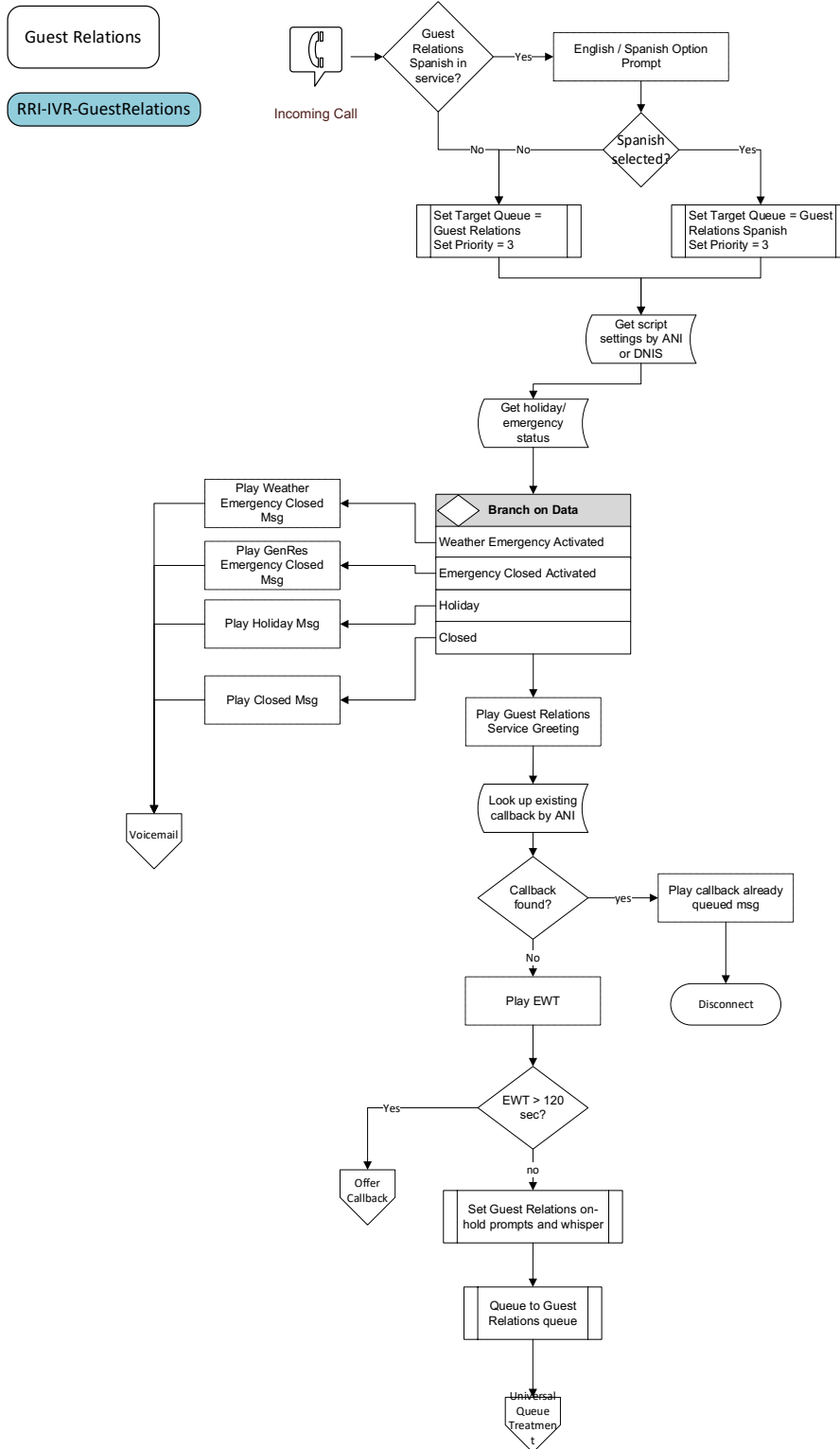
2.2.10 Groups



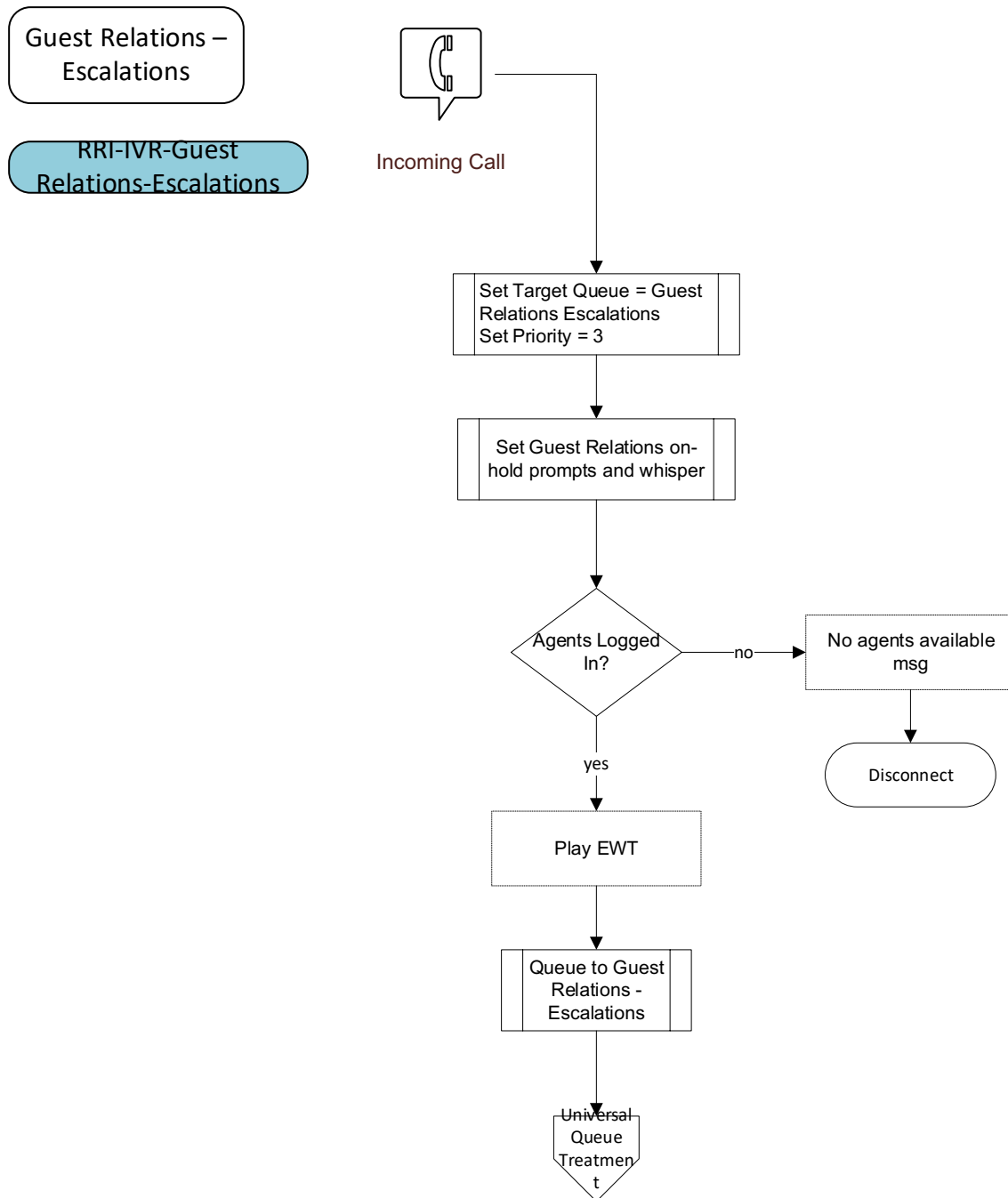
2.2.11 Groups Escalation



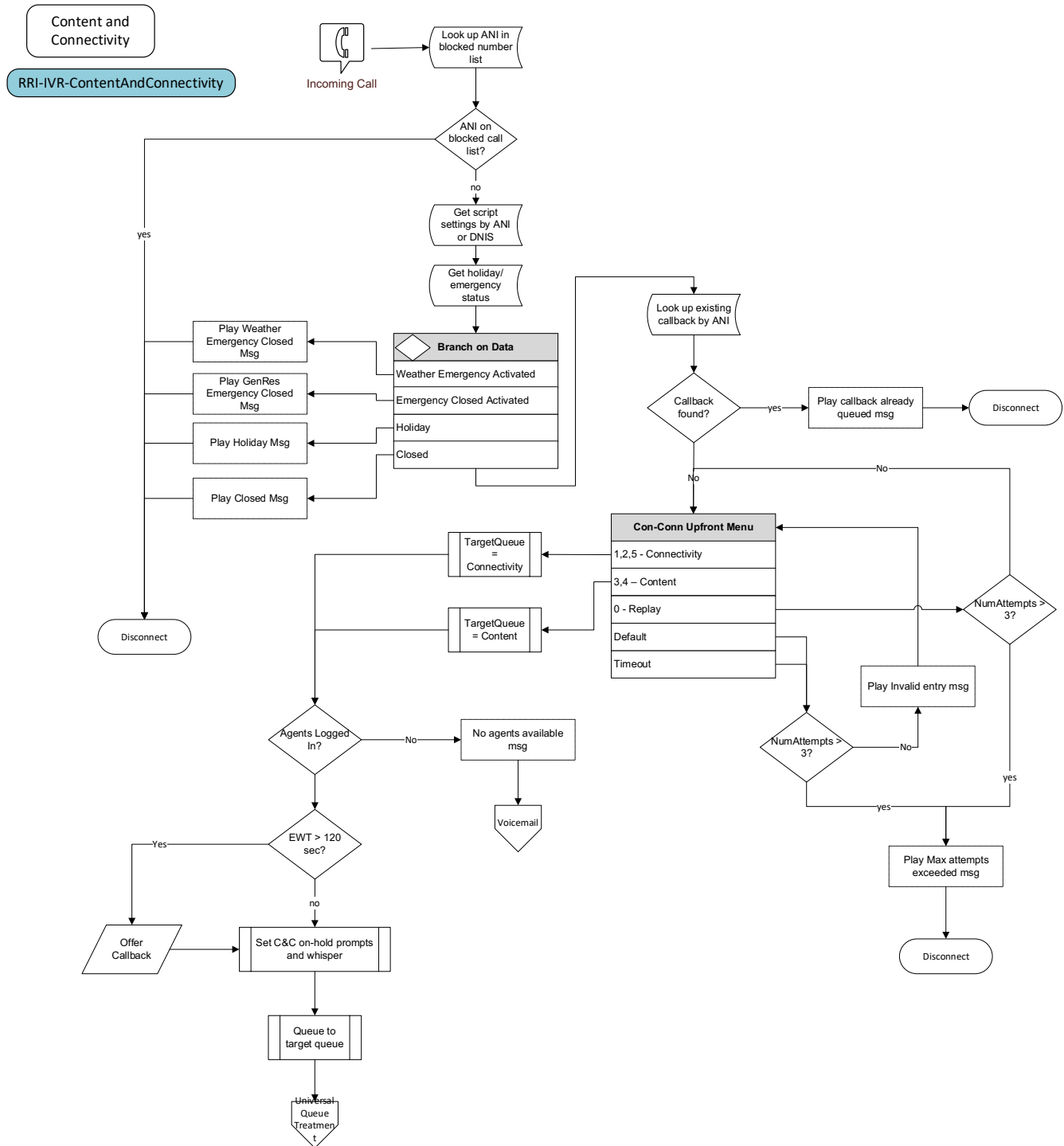
2.2.12 Guest Relations



2.2.13 Guest Relations – Escalation



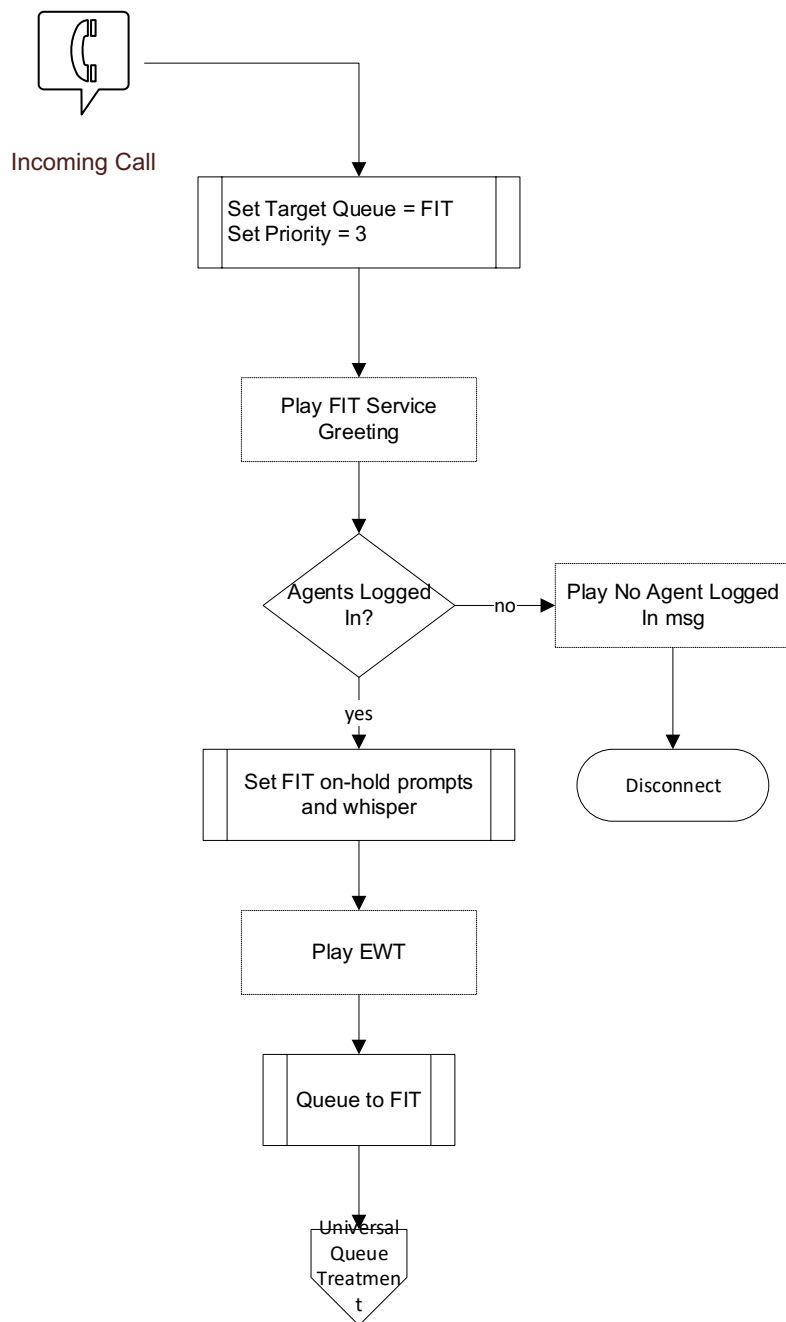
2.2.14 Content and Connectivity



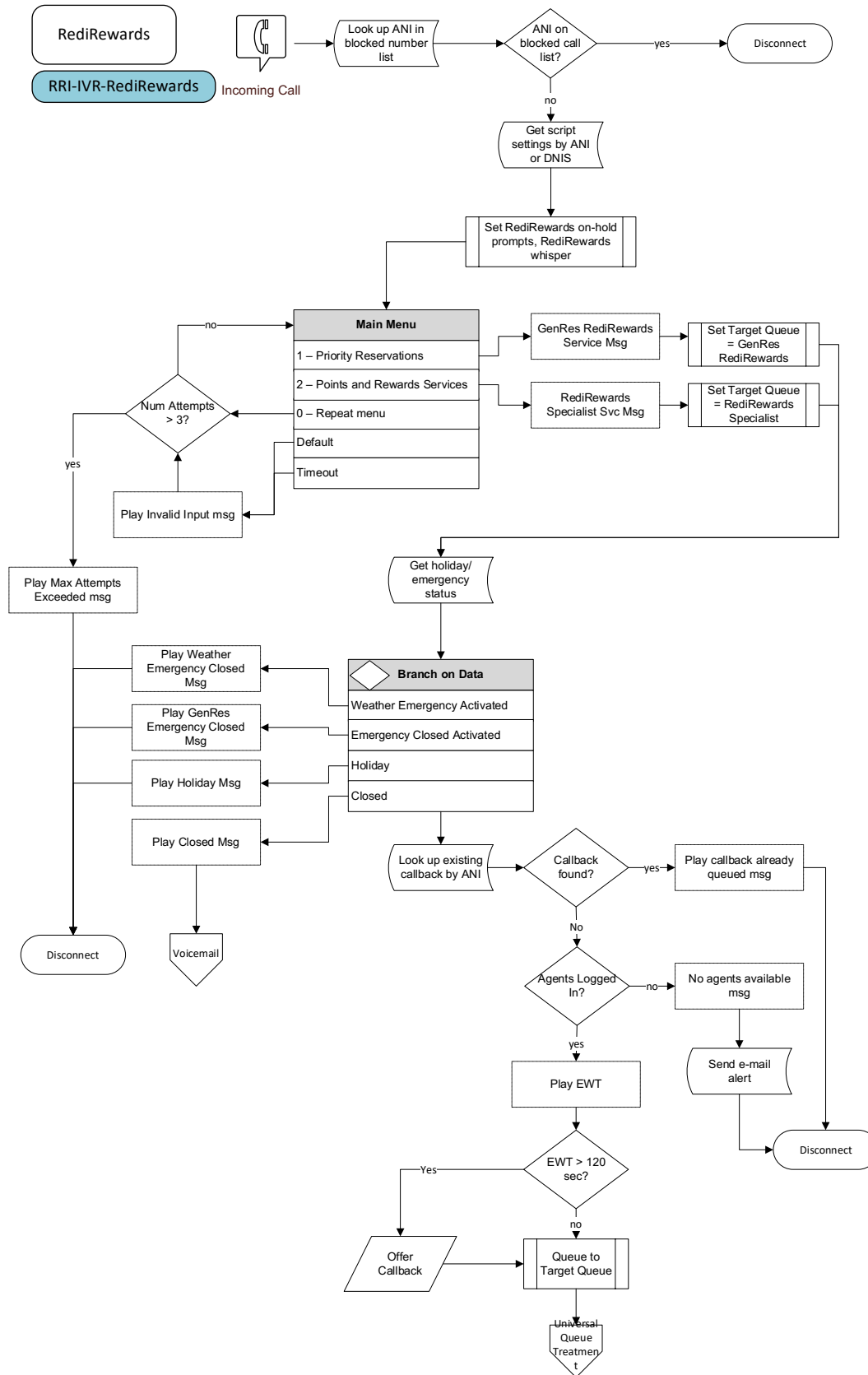
2.2.15 FIT

FIT

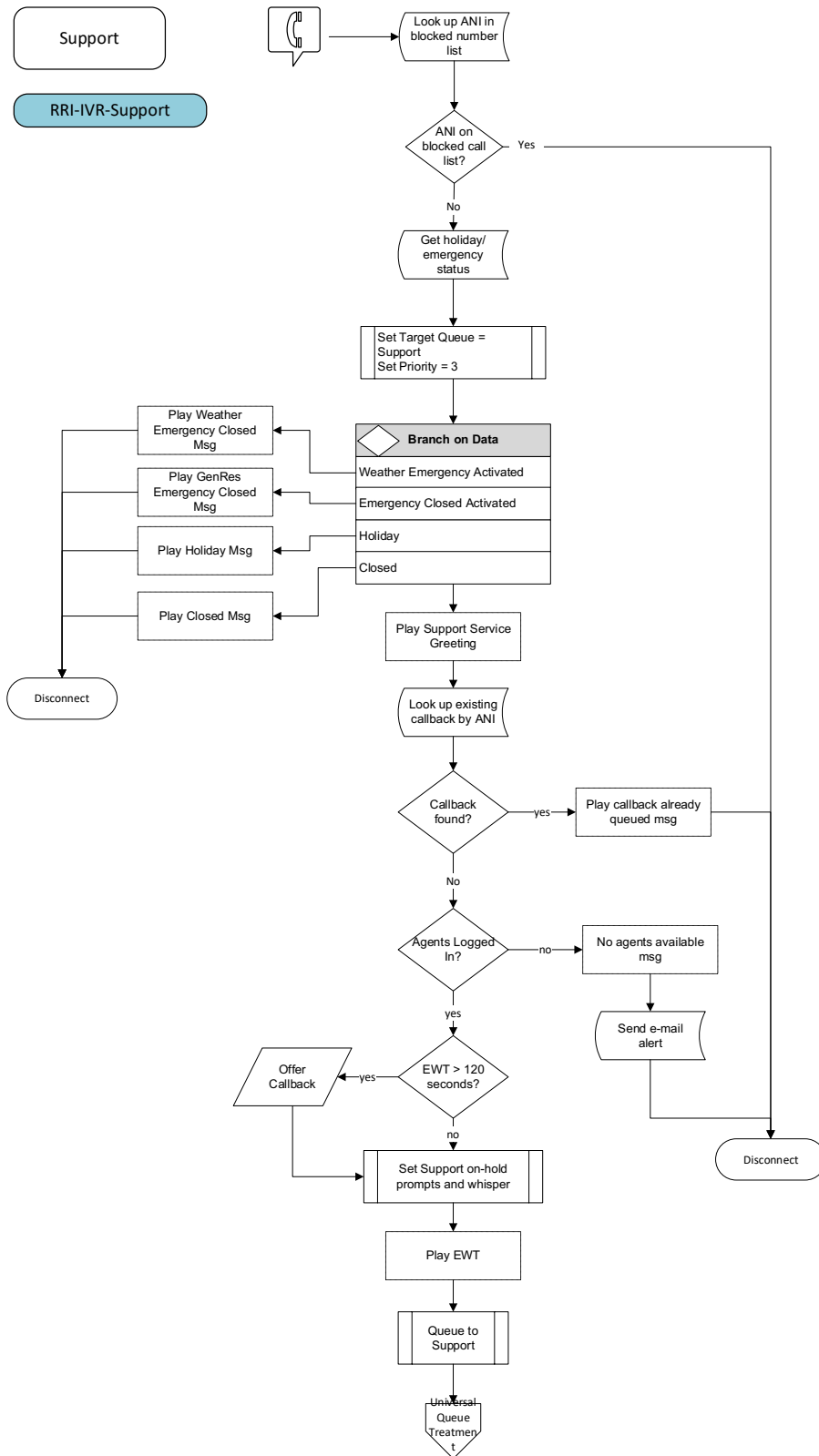
RRI-IVR-FIT



2.2.16 RediRewards



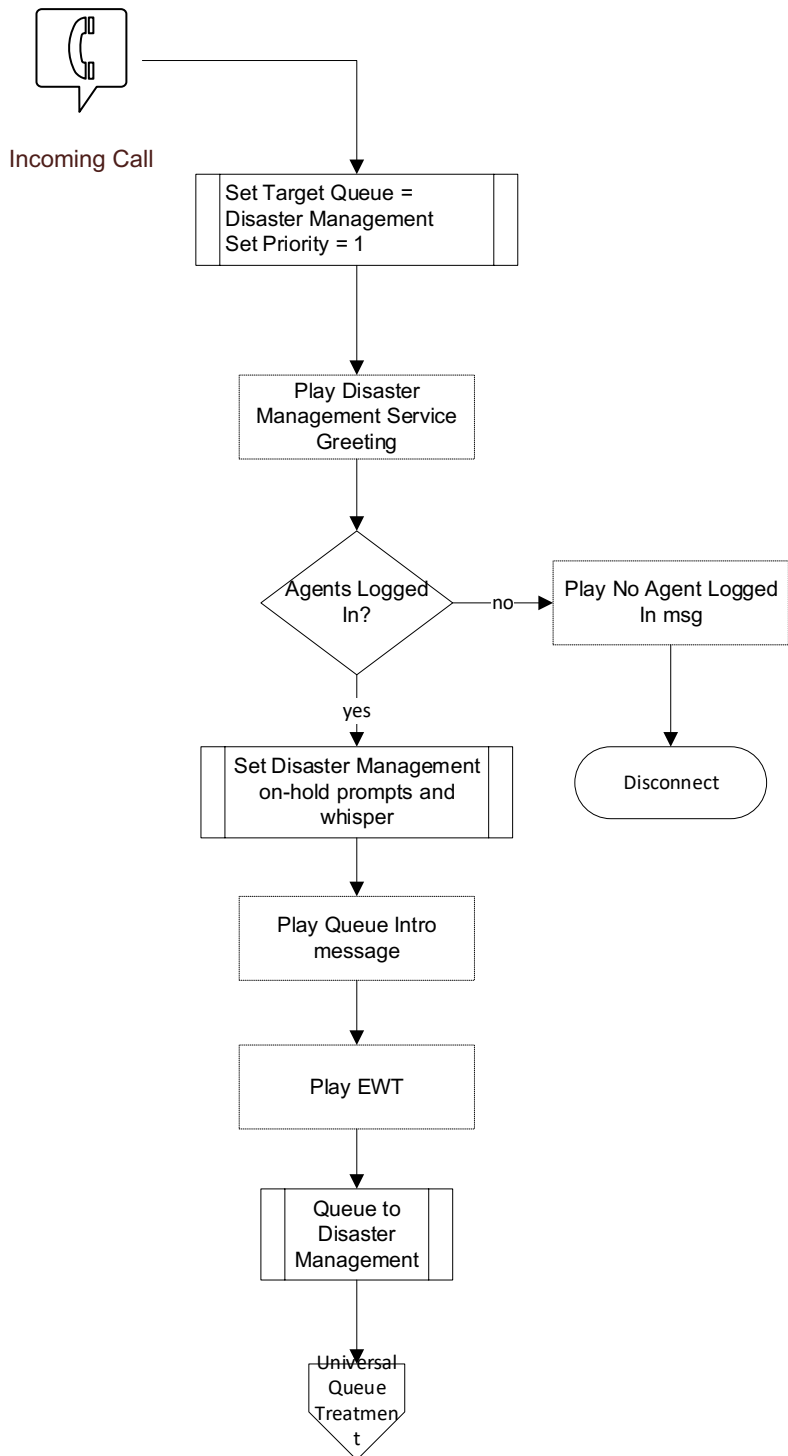
2.2.17 Support



2.2.18 Disaster Management

Disaster
Management

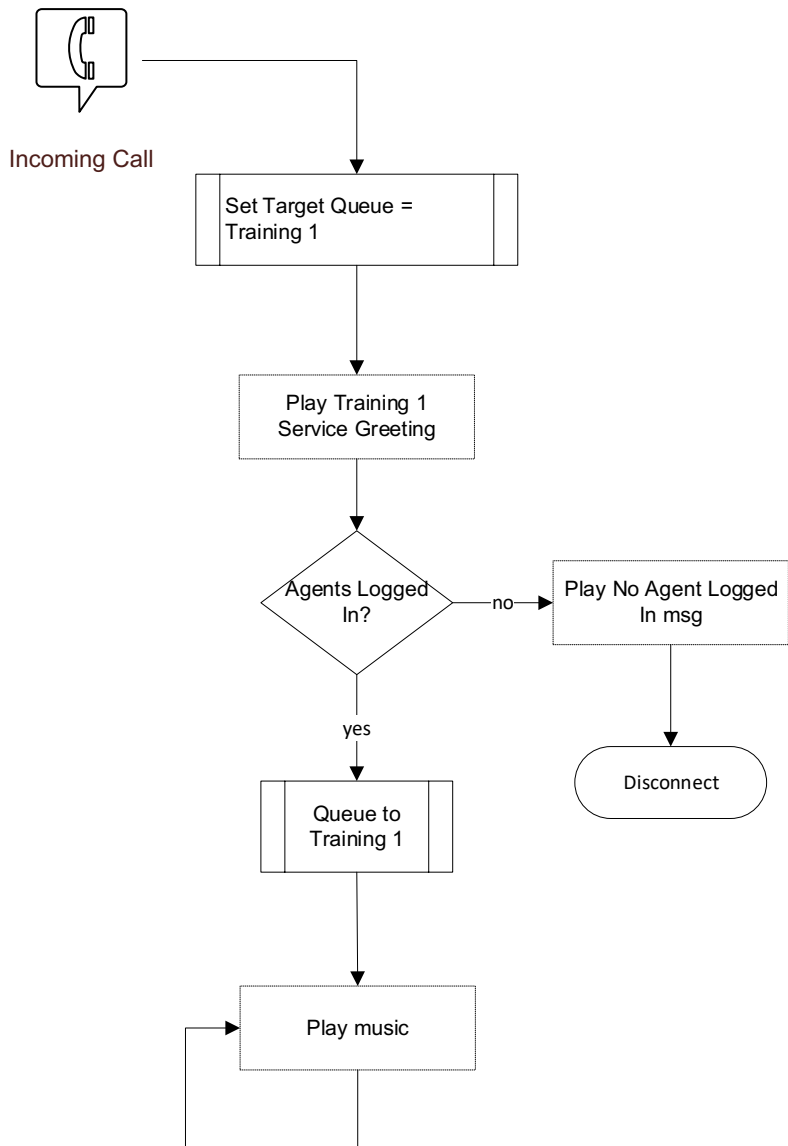
RRI-IVR-DisasterMgmt



2.2.19 Training 1

Training 1

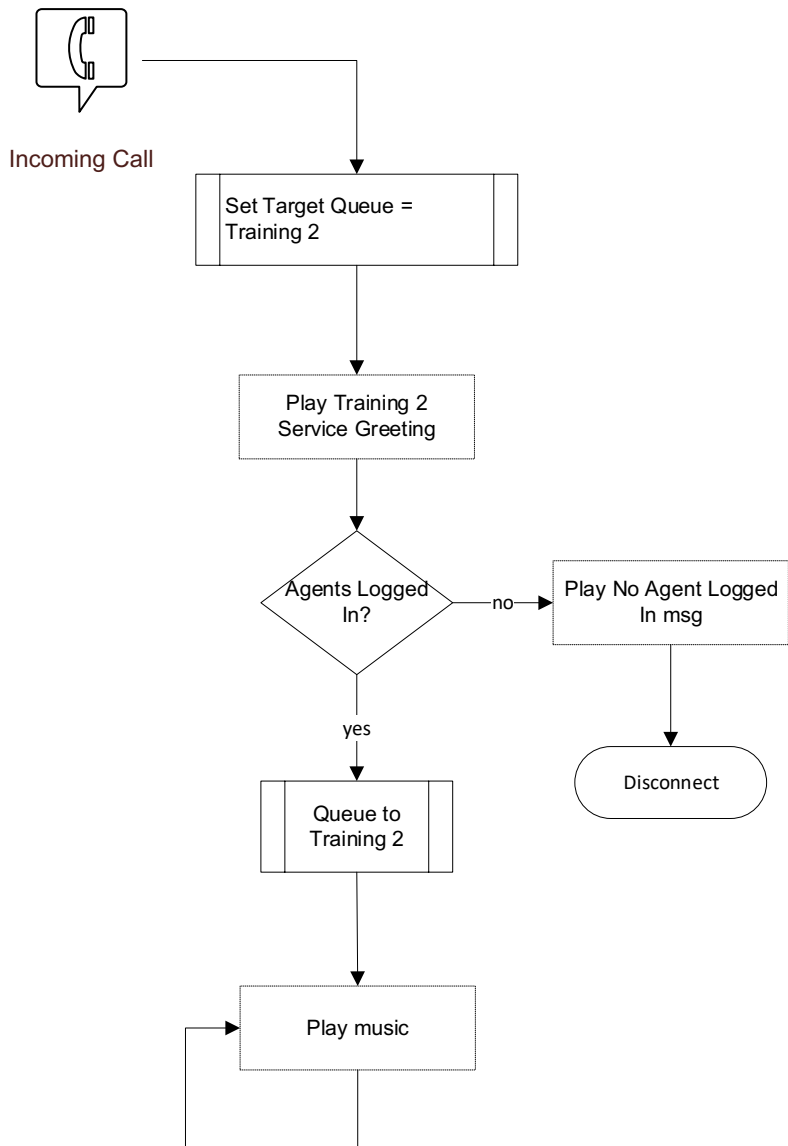
RRI-IVR-Training1



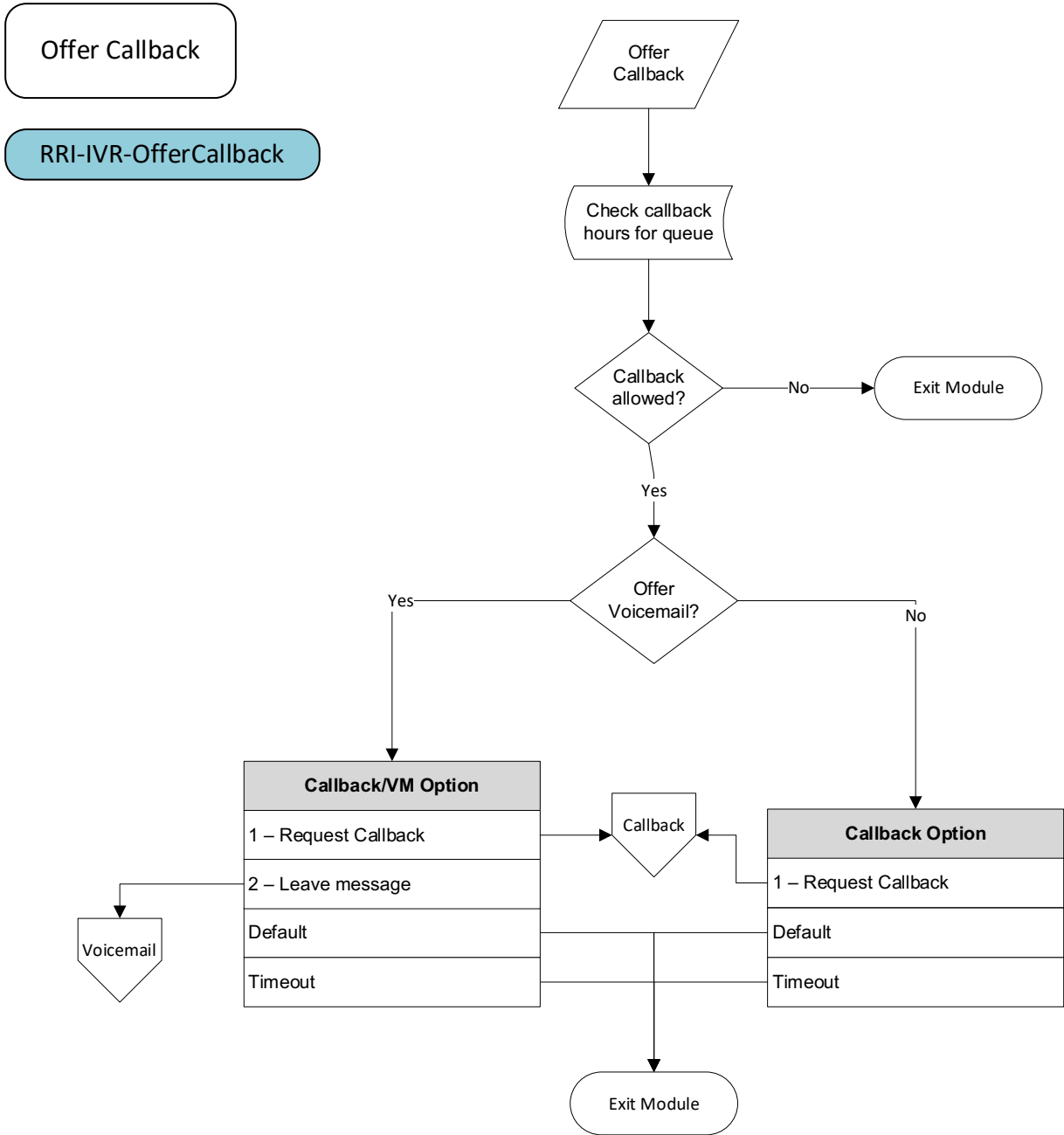
2.2.20 Training 2

Training 2

RRI-IVR-Training2



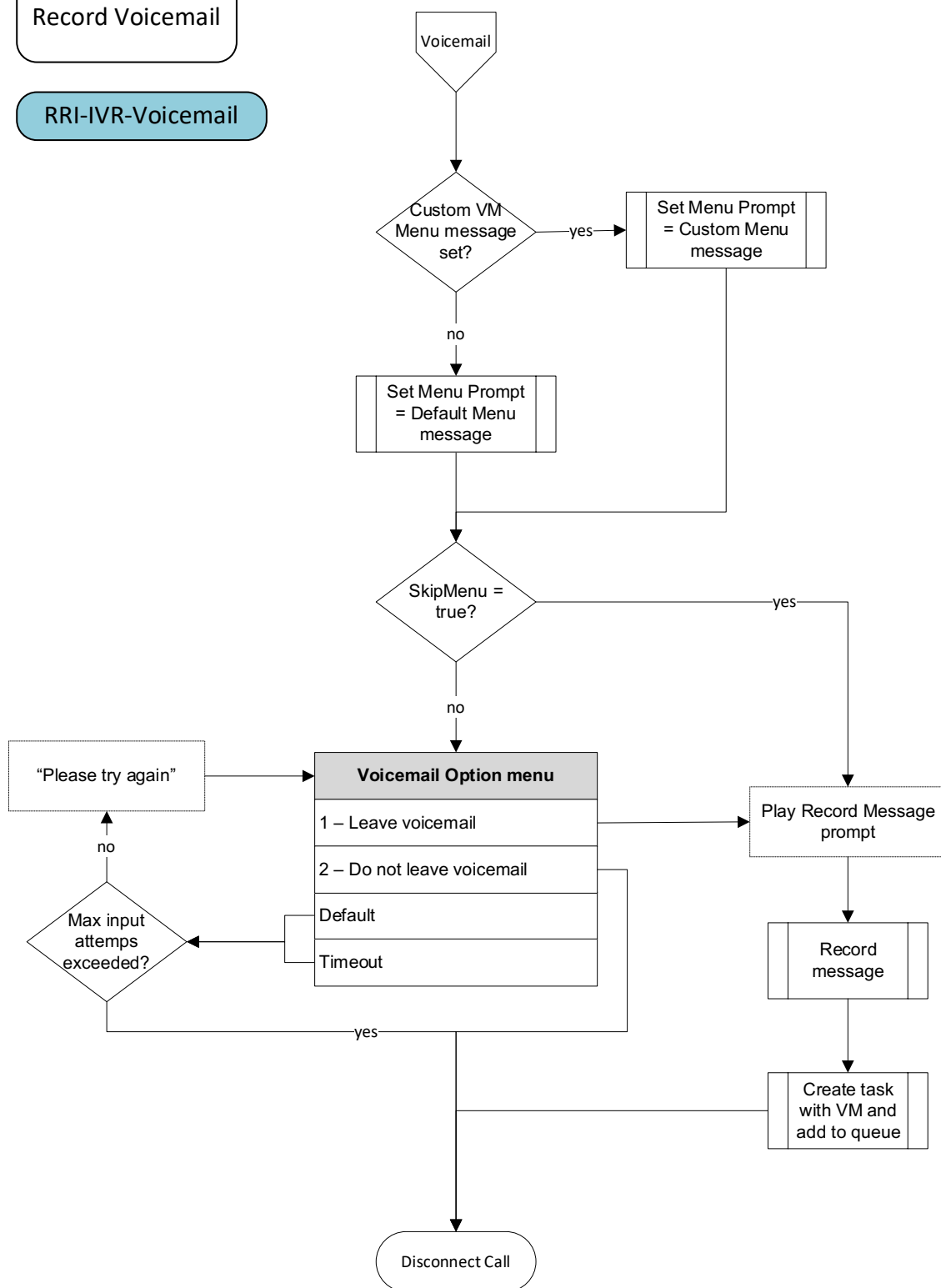
2.2.21 Offer Callback Module



2.2.22 Voicemail

Record Voicemail

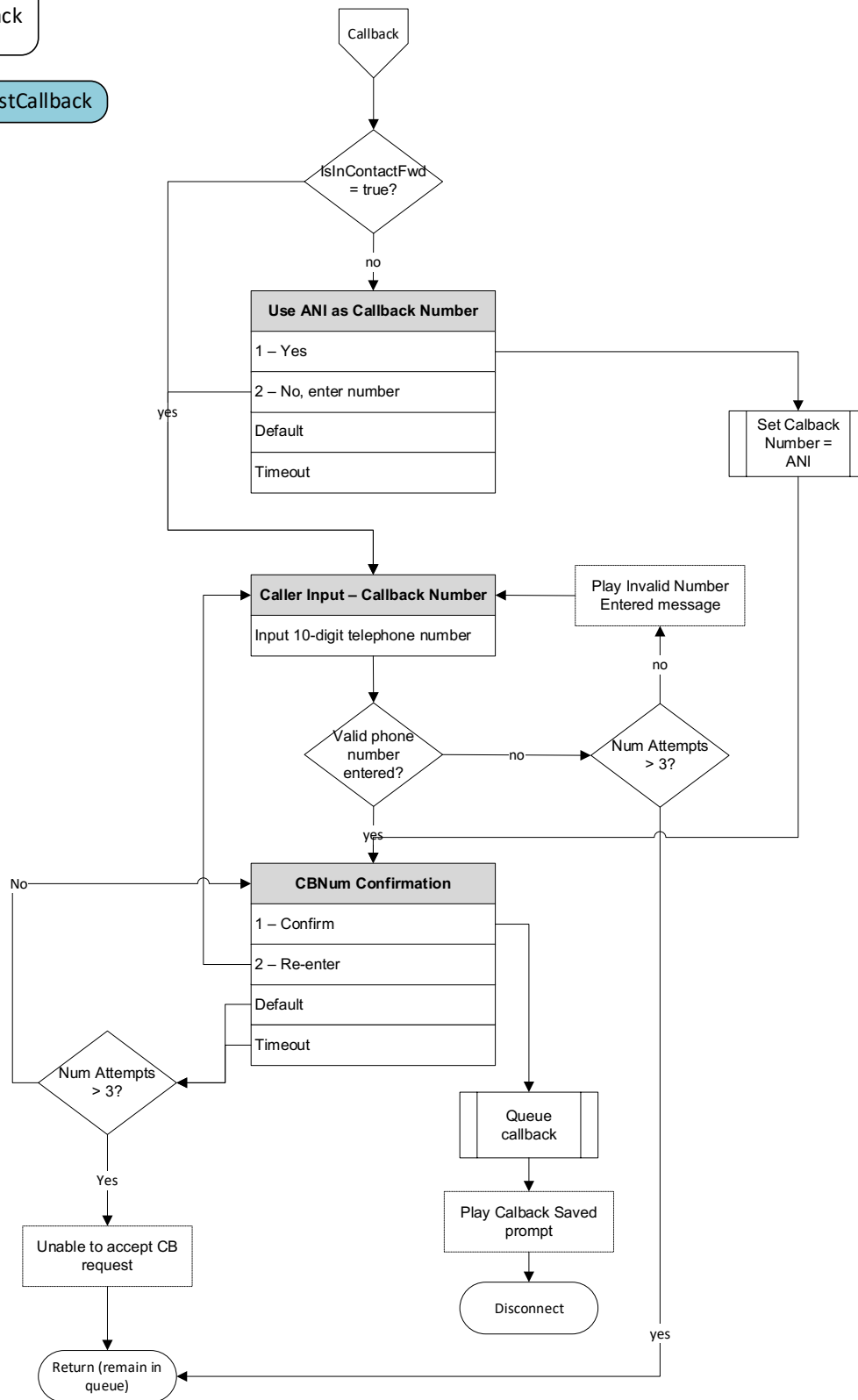
RRI-IVR-Voicemail



2.2.23 Call Back

Request Callback

RRI-IVR-RequestCallback



3 Configuration

3.1 Queues

The following Queues were created based on Skills that existed in NICE. This table indicates whether the queue will receive Voicemails (Tasks) or Emails (Tasks).

Queue	Members	Tasks / Voicemail Enabled	Email Inbound / Outbound
AARP Members	Gen Res agents	No	No
GenRes	Gen Res agents	No	No
GenRes Click to Call	Gen Res agents	No	No
GenRes Online	Gen Res agents	No	No
Redicall-AA	Gen Res agents	No	No
GenRes RediCall	Gen Res agents	No	No
GenRes RediRewards	Gen Res agents	No	No
GenRes Mobile	Gen Res agents	No	No
GenRes_Spanish	Gen Res Spanish speaking agents	No	No
RediRewards Specialist	Gen Res RediRewards specialists	No	No
Disaster Management	Gen Res Escalation agents – Priority 1; Disaster management email	No	Yes
GenRes Escalation	Gen Res Escalations; SF Escalation email	Yes	Yes
Nextline	Gen Res Escalations; Nextline email	Yes	Yes
RFP Desk	Groups	Yes	No

Groups	Groups	Yes	No
Groups Escalation	Groups Escalation	Yes	No
Connectivity	Connectivity & RediPromise email	Yes	Yes
Commission	Commission	No	Yes
Content	Content; RediPromise email	Yes	Yes
FIT	FIT	No	No
Guest Relations	Guest Relations; RediRewards & Guest Relations & Guestin email	Yes	No
Guest Relations Spanish	Guest Relations Spanish agents	Yes	Yes
Guest Relations Escalation	Guest Relations Escalation	Yes	Yes
Support	Support	Yes	No
Training 1	Training	No	No
Training 2	Training	No	No
Extra Quick Connects	Extra Quick Connects – Queue not in Call Flows	No	No
Extra queue 1-4	Allows for new queues will all Quick Connects	No	No
Quick Connects Main	All main quick connects – add to Routing profiles as needed	No	No

3.2 Routing Profiles

Routing Profiles are used to set up and control how incoming calls, chats, and emails are routed to specific agents. They allow contact centers to define the routing rules for each agent and the order in which they are applied. The configuration of Routing Profiles includes setting up routing rules and conditions, assigning skills, and setting up routing priority. This will be done as a joint effort between SoftwareOne and the Customer's system admin(s).

Routing rules and conditions specify the criteria that must be met in order for a caller to be routed to a particular agent. Skills allow contact centers to associate agents with specific tasks. Routing priority determines the order in which agents are contacted when multiple agents are available.

Configuration options for Routing Profiles include setting the maximum number of conversations for each agent, setting up call forwarding rules, and configuring the routing language. Maximum conversation settings allow contact centers to limit the number of conversations an agent can handle at one time.

3.2.1 Common Settings

A routing profile will be configured for each team; all routing profiles will use the same settings apart from queue assignments, as noted below:

Enabled?	Channel	Max Contacts/Agent	Cross-Channel Concurrency
Yes	Voice	1	No other channels while agent is on Voice contact
No	Chat	1	No other channels while agent is on chat
Yes	Task	1	No other channels while agent is on task

All routing profiles will use “Outbound” as the default outbound queue.

3.2.2 Routing Profile Definitions

Please note – for voicemail to Task functionality, the Task Channel will be enabled on routing profiles where voicemail is enabled. For Local Measure email functionality, the Chat Channel will be enabled on routing profiles where email is enabled.

Name	Queues	Channels	Priority
Groups	Groups	Voice, Task	All Priority 1
RFP Desk	RFP Desk	Voice, Task	All Priority 1
Groups Escalation	Groups Escalation	Voice, Task	All Priority 1
Groups Escalation Alternate	Escalation +All Agent Queues	Voice	All Priority 1
Groups Hybrid	Groups and Groups Escalation Only	Voice	All Priority 1

Connectivity	Connectivity <i>Commission Email</i>	Voice, Task, Chat	All Priority 1
Content	Content	Voice, Task	All Priority 1
Content – RediPromise	Content <i>RediPromise Email</i>	Voice, Task, Chat	All Priority 1
Connectivity – RediPromise	Connectivity <i>RediPromise Email</i> <i>Commission Email</i>	Voice, Task, Chat	All Priority 1
Connectivity Phones Only	Connectivity Phones Only	Voice	All Priority 1
FIT	FIT	Voice	All Priority 1
Gen Res	AARP Member GenRes GenREs Click to Call GenRes Online Redicall-AA GenRes RediCall GenRes RediRewards GenRes Mobile	Voice	GenRes Online, RediCall-AA and GenRes RediCalls– Priority 1 GenRes RediRewards – Priority 2 All Others – Priority 3
Gen Res Escalation	Disaster Management <i>Disaster Management Email</i> Route to RediResponse MFA GenRes Escalation Nextline <i>SF Escalation Email</i>	Voice, Task, Chat	Priority 1 Priority 1 Priority 2 Priority 3 Priority 3 Priority 3
Gen Res Spanish	GenRes Spanish AARP Member GenRes	Voice	GenRes Spanish – Priority 1

	GenREs Click to Call GenRes Online Redicall-AA GenRes RediCall GenRes RediRewards GenRes Mobile		GenRes Online, RediCall-AA and GenRes RediCalls– Priority 2 GenRes RediRewards – Priority 3 All Others – Priority 4
Gen Res – RediRewards	RediRewards Specialist AARP Member GenRes GenREs Click to Call GenRes Online Redicall-AA GenRes RediCall GenRes RediRewards GenRes Mobile	Voice	GenRes Online, RediCall-AA and GenRes RediCalls– Priority 1 GenRes RediRewards – Priority 2 All Others – Priority 3
Gen Res – RediRewards - Spanish	RediRewards Specialist AARP Member GenRes GenREs Click to Call GenRes Online Redicall-AA GenRes RediCall GenRes RediRewards GenRes Mobile		GenRes Spanish – Priority 1 GenRes Online, RediCall-AA and GenRes RediCalls– Priority 2 GenRes RediRewards/R ediRewards Specialist – Priority 3 All Others – Priority 4

Guest Relations	Guest Relations / <i>Guest Relations Email</i> <i>Guestin Email</i>	Voice, Task, Chat	All Priority 1
Guest Relations Spanish	Guest Relations Guest Relations Spanish	Voice, Task	All Priority 1
Guest Relations Escalation	Guest Relations Escalation <i>VP Customer Care Email</i> <i>Guest Relations Escalation Email</i>	Voice, Chat	Priority 2 Priority 1 Priority 2
Support	RRI Support	Voice, Task	All Priority 1
Training	Training 1 Training 2	Voice	All Priority 1
RediResponse	RediResponse	Voice	All Priority 1
RediPromise Only	RediPromise Only	Voice, Task	All Priority 1
Training GenRes Escalation – Email only	Email Queues Only	Task	All Priority 1
Training Guest Relations Email	Emal Queues Only	Task	All Priority 1
Training RediRewards	ABAY RediRewards	Voice	All Priority 1

3.3 Outbound Calling

Agents will be enabled for outbound calling through Amazon Connect by assigning them to the “Outbound” queue. Outbound calling will be enabled as follows:

- Local, long-distance, and international calling will be enabled
- Local and long-distance calls must be prefixed with the US country code (1) and area code
- International calls must be prefixed with the country code
- Caller ID (note that outbound caller ID name is not supported by all carriers)

skill_name	Outbound Caller ID	Caller ID Name (if applicable)
Connectivity	844-899-2425	Red Roof
Content	844-899-2425	Red Roof
FIT	937-328-1875	Red Roof
AARP Member	800-733-7663	Red Roof
Disaster Mgmt	877-874-9000	Red Roof Escalation
Gen Res HTS Craigs List	800-733-7663	Red Roof
GenRes	800-733-7663	Red Roof
GenRes Click To Call	800-733-7663	Red Roof
GenRes Online	800-733-7663	Red Roof
Redicall-AA	800-733-7663	Red Roof
GenRes RediCall	800-733-7663	Red Roof
GenRes RediRewards	800-733-7663	Red Roof
GenRes Mobile	800-733-7663	Red Roof
RediRewards Specialist	800-333-0991	Red Roof RediRewards
GenRes Escalation	614-641-4802	Red Roof Escalation
Nextline	855-419-0373	Red Roof Nextline
GenRes Spanish	877-733-7244	Red Roof
RFP Desk	937-328-1824	Red Roof Groups
Groups	800-874-9000	Red Roof Groups
Groups Escalation	800-874-9000	Red Roof Groups
Guest Relations	800-554-4555	Red Roof Guest Relations
Guest Relations Escalation	800-554-4555	Red Roof Guest Relations
RediResponse – All individual agents	800-733-7663	Red Roof
RRI Support	937-328-4848	Red Roof Support
Escalation – All individual agents	614-641-4802	Red Roof Escalation
Training 1	800-733-7663	Red Roof
Training 2	800-733-7663	Red Roof

3.4 Operational Parameters

3.4.1 Hours of Operation

Each queue will have an operation schedule; the schedule will be configured with the hours of operation as shown in the table below. Calls arriving outside these hours will be greeted with an outside office hours message, if voicemail is configured, then an option to leave a voicemail will be offered.

See CX-RedRoofInn-Hours of Operation.xls

3.4.2 Holidays

The existing tenant Lambda function **redroof-connect-holiday-checker** will be used for the holiday schedule; the Lambda will also provide the message to be played back during holidays.

See CX-RedRoofInn-Hours of Operation.xls

3.4.3 System Notification

A system notification message can be configured to play as an initial message for all callers. The notification activation status and TTS message will be stored in a DynamoDB table and retrieved via a Lambda function.

3.5 Agent Status

Agent Status controls agents' availability within the queue. Specific information about the reasons for an agent's availability/unavailability can be indicated by creating additional status states.

'Available' is a system-default state which means that an agent is available and ready to take calls.

'Offline' is also a system-default state which indicates that an agent is not available to take calls.

Custom Agent Statuses will be configured:

- After Call Work
- Bio Break
- Break
- Call Backs
- Gen Res Escalation
- Lunch
- Meeting

- On Call ACW
- On Call Transfer
- Training
- Project
- Quality Coaching
- Training-Class/ABAY
- Training-Other

3.6 Security Profile

Amazon Connect includes default security profiles for general roles. The default configurations will be used for all profiles and SoftwareOne will assist admins with adjusting security profiles as needed for production.

The default security profiles are:

- **Admin** - An administrator can perform all actions available.
- **Agent** - An agent is a user of the system that is focused on customer care and/or sales. Their role is unlikely to be technical.
- **CallCenterManager** - A call center manager (or call center admin) manages the day-to-day aspects of the call center.
- **Quality Analyst** - A quality analyst works to improve the customer experience and keeps track of live service metrics.

Additional profiles added by Red Roof Inn:

- **RTA** - Used by RTAs - access to update Routing Profiles, real time metrics, historical metrics.
- **Reporting** – Reporting functions only.
- **Supervisor** – Supervisor and Senior Agents – ability to view users, view reporting, pull calls, live monitor

3.7 Quick Connects

Quick Connects is a feature in Amazon Connect that enables an agent to perform a transfer more quickly. Agents can utilize a quick list of options to transfer a call to an internal user, external number, or another queue. Quick Connects can be configured system-wide by an administrator or on an individual basis.

The following Quick Connects will be configured for initial production; additional Quick Connects may be configured on an as-needed basis.

The Red Roof Inn “Phone Book” of approximately 600 properties has been uploaded into Amazon Connect via API to populate the Quick Connects, as well as assign them to the appropriate queues (all queues will get the same phone book list).

Once the upload is completed, the maintenance and addition of Quick Connects will be manually managed by Red Roof Inn.

Due to the limitation of 700 Quick Connects per queue – we've created two queues that can be added to Routing Profiles for agents to see all relevant contacts:

- **Quick Connects Main**
- **Extra Quick Connects**

3.8 Agent Whisper

When an agent answers an incoming call or places an outbound call, Connect can deliver audio information prior to connecting the call.

Inbound: The property location of the inbound calling number will be identified in Whisper when the call is connected to the agent. This will be based on a look up of the incoming phone number.

Queue / Property ID / Property Name / Property ID

Outbound: When a call back is initiated to the Agent, a whisper will indicate that it's Call back.

Database Lambda functions for this functionality will be provided by Red Roof Inn.

3.9 Agent Experience

The Connect Contact Control Panel (CCP) will be used as the call handling client.



Figure 7 - CCP Screenshot

The CCP runs within a Web browser (officially Chrome) and allows the user to place and answer calls, toggle availability, select audio devices, and configure a forwarding number to send inbound calls to a mobile phone or other PSTN number.

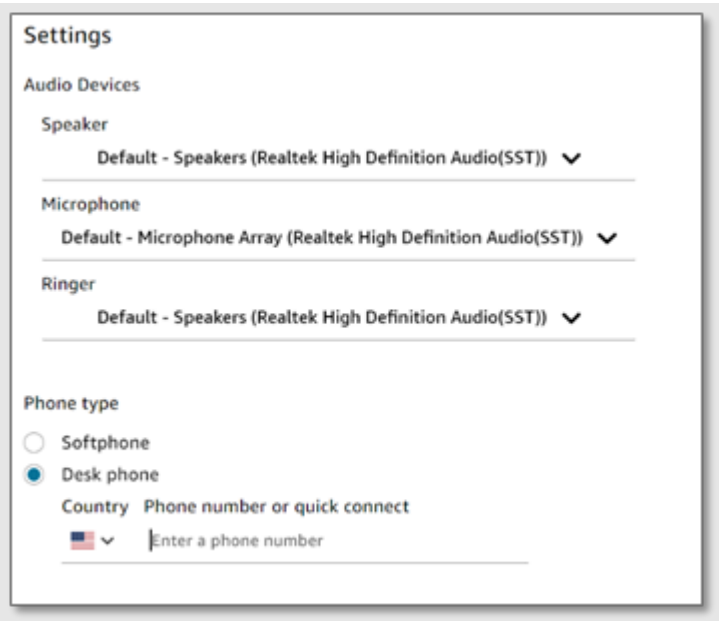


Figure 8 - Audio Configuration and Call Forwarding

For agents that will handle email, they will utilize the Local Measure front-end experience for voice, tasks and emails.

3.10 Call Recording

All calls (inbound and outbound) will be recorded and stored in S3 bucket **redroof-cc-prod-ctr**. Recordings will be encrypted using a key secured by KMS.

- Storage location: S3 bucket – redroof-cc-prod-ctr
- Encryption: enabled, key managed by KMS
- Retention policy: Retention for 6 months, then purge

3.11 System Configuration Settings

Item	Description	Policy Rule
Audio Recordings	Retention policy for audio recordings	6 months
S3 Encryption	KMS Encryption	

Kinesis Stream of CTR Data

CTR records will be streamed to an S3 bucket utilizing Kinesis Data Stream

3.12 Lifecycle Policies

The main S3 buckets for the Connect Deployment are:

- **amazon-connect-148638fbc6fa** - [amazon-connect-148638fbc6fa - S3 bucket](#) - this bucket contains call recordings, transcripts and reports for Connect
- **redroof-cc-prod-ctr** - [redroof-cc-prod-ctr - S3 bucket \(amazon.com\)](#) - this bucket contains the Contact Trace Records (CTR) for each call handled within Connect

The Lifecycle policies are as follows:

Day 0

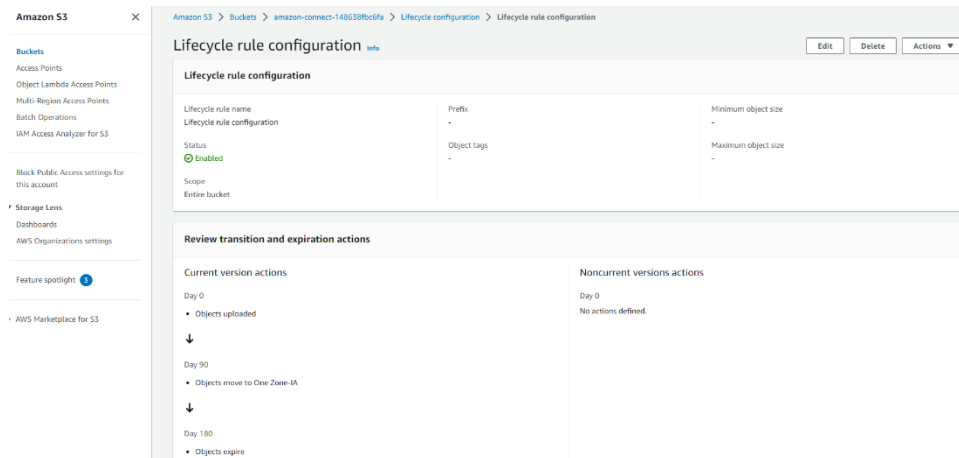
- Objects uploaded

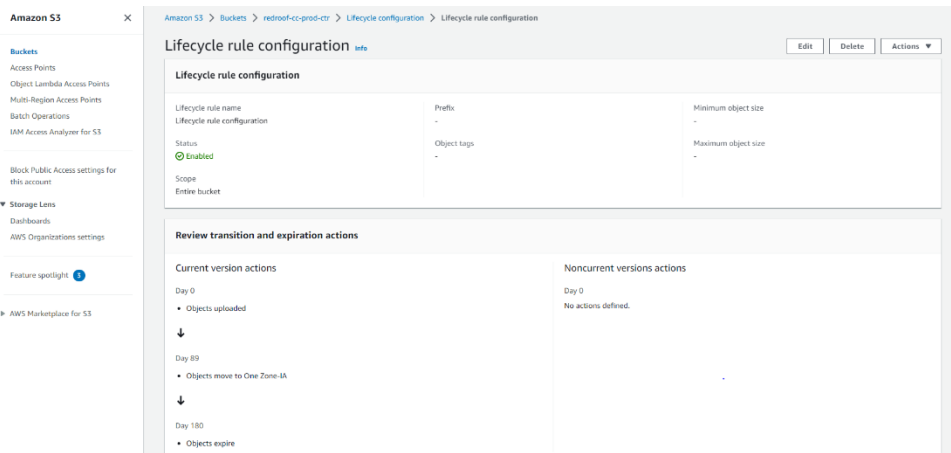
Day 89

- Objects moved to One Zone-IA

Day 180

- Objects expire

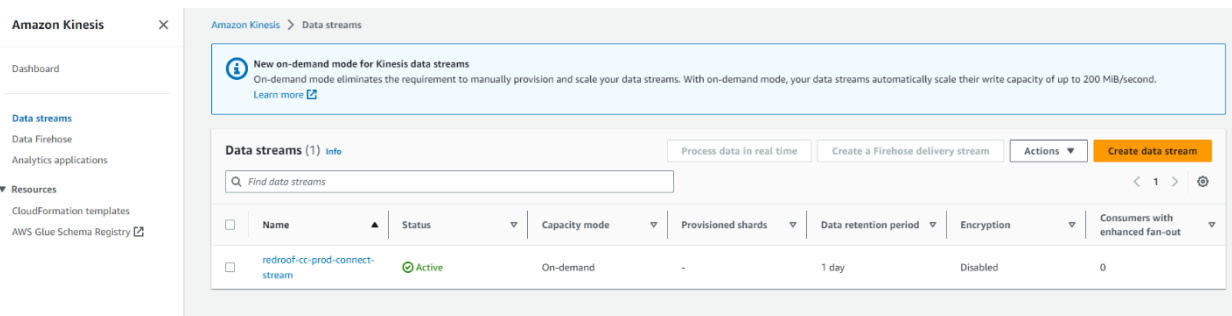




3.13 Kinesis / S3 Overview

Every call has a CTR record with all the call details. These records will be saved for every call for any future reporting needs.

Kinesis Data streaming has been configured to deliver the CTR call records to the **redroof-cc-prod-ctr S3 bucket**.



3.14 SAML/SSO Configuration

Agents that are Red Roof Inn employees will use Azure AD/Entra ID with their Red Roof Inn login credentials. Agents that are Ibex employees will use the Ibex ADFS URL to login.

There are two authentication parts in AWS:

1. Amazon Connect CCP and Dashboard – this authentication uses the IAM IdP in AWS.
2. Custom CCP – this uses both the above authentication along with Amazon Cognito.

Each of the above have a configuration for the specific Red Roof Inn and Ibex users.

Authentication	Red Roof Inn	Ibex
Amazon Connect	arn:aws:iam::123318811821:saml-provider/connect-aad-rrl	arn:aws:iam::123318811821:saml-provider/adfs-ibex-ss0
Custom CCP	arn:aws:cognito-idp:us-east-1:123318811821:userpool/us-east-1_kwMklDgi4	arn:aws:cognito-idp:us-east-1:123318811821:userpool/us-east-1_GQEaJ4oTP
	redroof-cc-prod-azure-idp-saml	redroof-cc-prod-ibex-idp-saml

When updating the Metadata XML file, both the IAM IdP and the Amazon Cognito resources of the relevant organizations (Red Roof Inn or Ibex) must be updated, or the specific agents will not be able to login.

Red Roof Inn XML (for Cognito): <https://login.microsoftonline.com/d1350479-b1e0-4f57-9375-03a40d7fba7e/federationmetadata/2007-06/federationmetadata.xml?appid=a00112e8-0777-4b93-be5c-5ed2a8c37457>

Ibex Metadata XML: <https://sso.ibexglobal.com/FederationMetadata/2007-06/FederationMetadata.xml>

Changing the XML:

AWS IAM IdP:

1. In Services > IAM, select Identity Providers
2. Select the provider. Click Download Metadata to have a backup copy of the current XML metadata in use. (recommended in case of rollback). Then click Replace Metadata and select the new XML metadata.

Amazon Cognito:

1. In Services > Amazon Cognito, select User Pools.
2. Select the user pool. Select the Sign-in experience tab. In the Federated identity provider sign-in section, select the Identity provider (there should only be one per User pool)

3. In the Metadata document section, click Replace metadata and enter the new metadata URL or file.

4 Integrations

4.1 Red Roof Inn Lambda functions

These functions have been created by Red Roof and made available for integration with the Connect implementation.

- aws-connect-transfer_number_lookup
- aws-connect-phone_number_lookup
- aws-connect-blocked_number_lookup
- aws-connect-aa_main_lookup
- aws-connect-pause_resume_recording
- aws-connect-agent_lookup

4.2 New Lambda Functions

The following Lambda functions were created to support this design by Red Roof Inn and SoftwareONE.

- **redroof-connect-holiday-checker** – verifies Holidays; called by appropriate Call flows
- **redroof-connect-rollout-checker** – checks for emergencies; called by appropriate Call flows.
- **redroof-connect-get-next-prompt** - A simple mobile backend (read from DynamoDB).
- **redroof-connect-cancel-reservation** - Invokes an RRI-provided Web service to cancel a reservation. Takes the confirmation number as input.
- **redroof-ivr-email-to-task** – Converts an e-mail forwarded by SES to a task with a link to the email in Exchange Online.
- **redroof-ivr-email-to-manager** – Sends alert e-mail to one or more SMTP addresses in the event of a queue out-of-service situation (all agents logged out).
- **redroof-ivr-get-service-config** – Gets the service-specific call treatment configuration for a given DNIS. Returned information includes service-specific messages for closure, holidays, and weather outages, brand (if applicable), queue ID and name, call flow to invoke (for dynamic routing), voicemail enabled/disabled (and custom voicemail message if needed), and whether the number is used for transfer in from a property.

- **redroof-ivr-readcallback** – Searches the redroof-connect-callback table for an entry matching the given callback number.
- **redroof-ivr-writecallback** – Writes a callback request to the redroof-connect-callback table for later use when checking to see if a callback request has been placed.
- **redroof-ivr-removecallback** – Removes the callback request from the redroof-connect-callback table.
- **redroof-ivr-get-callback-hours** – Retrieves the configured allowed callback hours for the given queue from the redroof-ivr-callback-check table
- **redroof-ivr-check-callback-hours** – Checks to see if the current time is within the configured allowed callback hours for the queue.
- **redroof-route-to-agent** – Maps a phone number (DID) to a Connect agent ID. Used for direct-to-agent calling.
- **redroof-map-contact-to-agent** – Updates the redroof-map-contact-to-agent table with the given contactId. Used to provide a contact ID for recording pause/resume from Red Roof's external agent application.
- **rr-vm-kvsConsumerTrigger** - AWS Lambda Function to start (asynchronous) streaming transcription; it is expected to be called by the Amazon Connect Contact Flow. This function is part of the voicemail subsystem.
- **rr-vm-processContactSummary** - AWS Lambda Function that will be triggered when the wav call recording file is placed in S3. This function will collect all the transcript segments, and the audio file location and update the contact database. This function is part of the voicemail subsystem.
- **rr-vm-kvsTranscriber** - Process audio from Kinesis Video Stream and use Amazon Transcribe to get text for the caller audio. Will be invoked by the kvsConsumerTrigger Lambda, writes results to the transcript DynamoDB tables, and uploads the audio file to S3. This function is part of the voicemail subsystem.

4.3 Databases

The following DynamoDB tables are utilized in the deployment:

- aws-connect-aa_main
- aws-connect-blocked-number
- aws-connect-blocked-number-ITHD
- aws-connect-mobile_route

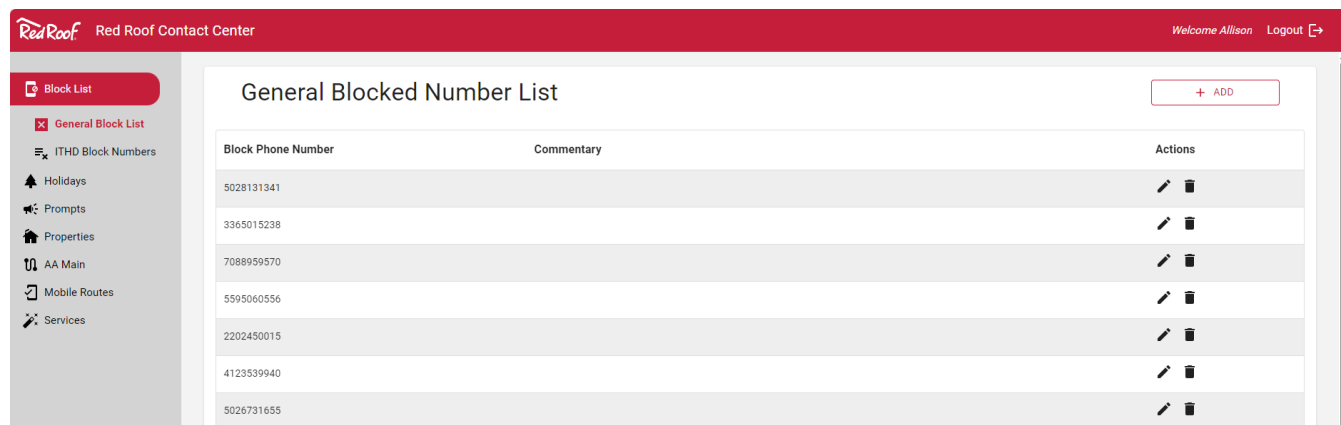
- aws_connect_phone_mapping
- redroof-cc-prod-ses-agent-tracking (Email solution)
- redroof-cc-prod-ses-email-table (Email solution)
- redroof-cc-prod-ses-inbound-mailbox-tracking (Email solution)
- redroof-cc-prod-ses-property-information (Email solution)
- redroof-cc-prod-ses-property-information-dev (Email solution)
- redroof-cc-prod-ses-spam-tracking (Email solution)
- redroof-connect-callback
- redroof-connect-holiday
- redroof-connect-prompts
- redroof-connect-rollout
- redroof-connect-subsource-map (CCP Subsource mapping)
- redroof-ivr-callback-check
- redroof-ivr-dnis-map
- redroof-ivr-serviceconfig
- redroof-map-contact-to-agent
- redroof-route-to-agent
- redroof-ses-missed (Email solution)
- rr-vm-contactDetails
- rr-vm-contactTranscriptSegments

4.4 Admin Dashboard

The following is an overview of the Admin Dashboard - [Red Roof Inn Softphone](#). Admin Security profiles have access to this dashboard once logged in with SSO credentials. Each link in the dashboard corresponds with the DynamoDB database and adds/updates/deletions update the databases.

4.4.1 General Block List

To add numbers to the General Blocked Calls List (DynamoDB: aws-connect-blocked_number)



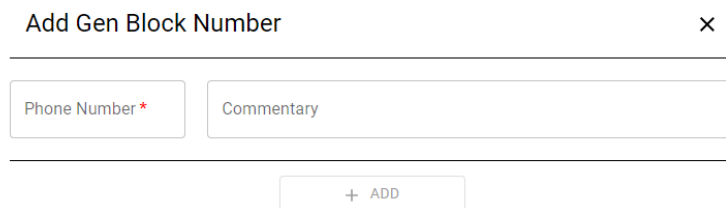
The screenshot shows the Red Roof Contact Center Admin Dashboard. The left sidebar contains a 'Block List' section with a 'General Block List' link. The main content area is titled 'General Blocked Number List' and features a table with columns for 'Block Phone Number', 'Commentary', and 'Actions'. The table lists seven phone numbers with their corresponding commentary and edit/delete actions. A '+ ADD' button is located in the top right corner of the table area.

Block Phone Number	Commentary	Actions
5028131341		
3365015238		
7088959570		
5595060556		
2202450015		
4123539940		
5026731655		

Click the **+Add** button to add a new entry.

Click the **pencil icon** to edit an existing entry.

Click the **delete icon** to delete an existing entry.



The form is titled 'Add Gen Block Number' and includes a close button (X). It has two input fields: 'Phone Number *' and 'Commentary'. A '+ ADD' button is located at the bottom right of the form.

Add Gen Block Number

X

Phone Number *

Commentary

+ ADD

To add a Block Number, enter the phone number, commentary (optional) and click +Add).

4.4.2 ITHD Block Numbers

To add numbers to the ITHD Blocked Calls List (aws-connect-blocked_number-ITHD):

Red Roof Contact Center

Welcome Allison Logout

Block List

General Block List

ITHD Block Numbers

Holidays

Prompts

Properties





AA Main

Mobile Routes

Services

ITHD Block Numbers

+ ADD

Block Phone Number	Commentary	Actions
3334445555	David Test 2	 
2145805870	Test number - Scott's work number	 

Rows per page: 25 1-2 of 2 < >

Click the **+Add** button to add a new entry.

Click the **pencil icon** to edit an existing entry.

Click the **delete icon** to delete an existing entry.

Add Gen Block Number

Phone Number *

Commentary

+ ADD

To add a Block Number, enter the phone number, commentary (optional) and click +Add).

4.4.3 Holidays

Add, update or edit redroof-connect-holiday database. These holidays are honored by the Call Flows.

Red Roof Contact Center

Welcome Allison Logout

Block List

Holidays

Prompts

Properties















AA Main

Mobile Routes

Services

Holidays

+ ADD

Date	Queue Name	Reason	Time Start	Time End	Time Zone	Type	Actions
01-01-2024	Connectivity	New Years Day	0000	2359	US/Eastern	holiday	 
01-01-2024	Content	New Years Day	0000	2359	US/Eastern	holiday	 
01-01-2024	FIT	New Years Day	0000	2359	US/Eastern	holiday	 
01-01-2024	Groups	New Years Day	0000	2359	US/Eastern	holiday	 
01-01-2024	Groups Escalation	New Years Day	0000	2359	US/Eastern	holiday	 
01-01-2024	Guest Relations	New Years Day	0000	2359	US/Eastern	holiday	 
01-01-2024	Guest Relations Escalation	New Years Day	0000	2359	US/Eastern	holiday	 

Add Holiday
×

Date *

Queue Name *

Reason

Time Zone ▼

Time Start

Time End

Type

+ ADD

4.4.4 Prompts

Add, update or edit redroof-connect-prompts database. This allows for editing of prompts in the Call Flows. New prompts will need to be integrated into existing Call Flows (additional steps required).

Red Roof Contact Center
Welcome Allison
Logout →

- Block List
- Holidays
- Prompts**
- Properties
- AA Main
- Mobile Routes
- Services

Prompts

+ ADD

Name	Language	Prompt	Actions
IT-Helpdesk-Skill-Greeting-073.4....wav	en-US	You have selected the option for Computers and Printers.	
Redicall-804-Property-Intro.wav	en-US	Thank you for calling the Red Roof Inn and Suites Pigeon Forge - Parkw...	
Redicall-1263-Property-Intro.wav	en-US	Thank you for calling the HomeTowne Studios Newport News – Hampt...	
Redicall-553-Property-Intro.wav	en-US	"Thank you for calling the Red Roof Inn West Memphis, Arkansas"	
Redicall-148-Property-Intro.wav	en-US	Thank you for calling the Red Roof Inn Hilton Head Island.	
Redicall-868-Property-Intro.wav	en-US	Thank you for calling the Red Roof Inn and Suites Pensacola - N A S Co...	
Redicall-1054-Property-Intro.wav	en-US	Thank you for calling the HomeTowne Studios Fresno - West	
Redicall-395-Property-Intro.wav	en-US	Thank you for calling the Red Roof Inn and Suites Stafford	

4.4.5 Properties

Add, update or edit redroof-cc-prod-ses-property-information database. This property information is displayed in the CCP Email solution.

Red Roof

Red Roof Contact Center

Welcome AllisonLogout

Block List

Holidays

Prompts

Properties













AA Main

Mobile Routes

Services

Properties

+ ADD

ID	Property Name	Phone Number	Email	FOD	Revenue Manager	Actions
RR1309	Red Roof Inn Spartanburg - I-85	864-754-4455	I0309@REDROOF.COM	Darrell Caruso	Brian Kowalski	 
RR1928	Red Roof Inn Dry Ridge	859-824-3700	I0928@REDROOF.COM	Ken Beauchene	Carmi Smith	 
RR1369	Red Roof Inn Morehead	606-784-2220	I0369@REDROOF.COM	Ken Beauchene	Carmi Smith	 
RR1496	Red Roof Inn & Suites Scottsboro	256-574-6740	I0496@REDROOF.COM	Dave Orzechowski	Jill Blackwell	 
RR1607	Red Roof Inn Springfield, OH	937-325-5356	I0607@redroof.com	Ken Beauchene	Tim McCarty	 
RR1852	Red Roof Inn Ames	515-450-5078	I0852@REDROOF.COM	Heidi Cordes	Viral Patel	 

Add Property

Property Number *

Property Name

Property Phone Number

Property Email

Property FOD

FOD Email

Revenue Manager

Revenue Manager Email

Watchlist

+ ADD

4.4.6 AA Main

Add, update or edit aws-connect-aa_main database. This maps property locations and front desk numbers.

Red Roof

Red Roof Contact Center

Welcome Allison Logout

Block List

Holidays

Prompts

Properties















AA Main

Mobile Routes

Services

AA Main

+ ADD

Property Id	Description	Front Desk Number	Actions
251	Red Roof PLUS Jacksonville - Southpoint	9042961006	 
187	Red Roof Inn Washington DC - Columbi...	4107090700	 
154	Red Roof Inn Chesapeake Conference ...	7575230123	 
1215	Red Roof Inn Saint George, SC	8435635552	 
1073	Red Roof Inn St George, UT - Conventio...	4356888383	 
1437	Home Towne Studios Yuba City, CA	5306748824	 
1135	Red Roof Inn Columbia, TN	9313811410	 

4.4.7 Mobile Routes

Add, update or edit aws-connect-mobile_route database. This maps mobile numbers to properties.

Red Roof

Red Roof Contact Center

Welcome Allison Logout

Block List

Holidays

Prompts

Properties

















AA Main

Mobile Routes

Services

Mobile Routes

+ ADD

Property Id	Description	Phone Number	Actions
251	PLUS Jacksonville - Southpoint	9373281594	 
187	Washington DC/Columbia-Ft. Meade	9373281543	 
154	Chesapeake Conference Center	9373281517	 
7	Michigan City	9373281397	 
947	Kennesaw, GA	9375055979	 
1215	St. George, SC	9373284809	 
115	PLUS Nashville North - Goodlet	9373281485	 
1073	St. George, UT	9373281692	 

4.4.8 Services/DNIS

Add, update or edit redroof-ivr-dnis-map database. This maps incoming numbers to specific queues.

Red Roof Contact Center

Welcome Allison Logout

Block List

Holidays

Prompts

Properties

AA Main

Mobile Routes























Services

DNIS

Services

DNIS

+ ADD

Phone Number	Commentary	Config Id	Actions
+19806664344		Unassigned	 
+19857922004		Unassigned	 
+19373284960		GenRes HTS Craigs List	 
+19373284810		GenRes Mobile	 
+19373281661		GenRes Mobile	 
+16789818172		Unassigned	 
+19373281583		GenRes Mobile	 
+19034294760		Unassigned	 
+16464402407	Direct to agent: carla.pearl@corp.ibexglobal.com	Direct Agent	 
+19373284837		GenRes Mobile	 
+17269991908	Gen Res Online - RRI248 Red Roof PLUS+ San Antonio Downtown - Riverwalk	GenRes Online	 

Add DNI Number



+ ADD

4.4.9 Services/Services

Add, update or edit redroof-ivr-serviceconfig database. This maps queues to whisper prompts.



- Block List
- Holidays
- Prompts
- Properties
- AA Main
- Mobile Routes
- Services
- DNIS
- Services

Services

+ ADD

Config Id	Brand	CB Caller Id	Queue Name	Whisper Prompt	Actions
GenRes Online	HTS		Gen Res Online	Gen-Rez Online	
GenRes Escalation		+18007337663	Gen Res Escalation	Gen-Rez Escalation	
GenRes		+18007337663	Gen Res	Gen-Rez	
Guest Relations HTS	HTS	+18005544555	Guest Relations	Guest Relations HTS	
Groups		+18005544555	Groups	Groups	
RediRewards Specialist		+18003330991	Gen Res RediRewards	Redi-Rewards Specialist	
GenRes4		+18007337663	Gen Res	Gen-Rez 4	

Thank you

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