

**Social Security Administration**  
**Change of Address / Direct Deposit**  
User Interface Specification  
Last Saved: 23 Feb 2009

**2.31**

**Global**

**BBN Findings Effort**  
**Transfer of Voice Data Collection**



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# Document History

Date	Spec	App	Summary of Changes	Revised by
12/06/04	1.0	1.0	Initial version for review of sample calls and basic global specifications. The top-level routing application is not here yet.	Paul Sawyer
12/10/04	1.1	1.0	Added top-level application tables. The tables are complete, but there is not yet text for retry, timeout, and help prompts.	Paul Sawyer
12/15/04	1.2	1.0	After first review. System timeout changed to 15 minutes. Prompt wording: 1040-Initial: retirement, survivor, disability. 1100-Help1: add that routing number is usually on left. 1200-Initial: "say xxx or press nnn" 1310-Initial and 1410-Initial: change "issued" to "set up" Other changes: 1370 COAdone renamed to just "done" 1450: several fixes relating to changing it to DD rather COA 1460 renamed to DDcheckstatus 1310 changes to Voice Menu rather than Yes/No to allow other responses.  Several DMs added to check and handle system and operator availability, and details of max retries and timeouts, and global commands: 0010, 0020, 2010, 2100, 2110, 2211, 2212, 2213. 1200 goes away, replaced in function by 2010.	Paul Sawyer
12/17/04	1.3	1.0	Add prompt text for retry, timeout, and help prompts. These prompts are NOT flagged with Word revision marking. A few other minor corrections ARE flagged.	Paul Sawyer
12/21/04	1.4	1.0	Minor changes based on review: * Change "insurance" to "income" in 1050. * Clarify that saying Question repeatedly gets the same Help text each time (intro to section 5.2). * Fill in the list of U.S. territories in 1060. * Fill in password process in new 1032.  One major change: Move the question about password to the beginning of the interaction, so that the correct service can be pinged as early as possible. Remove 1310, 1410. Replace them with internal branch tests. Add new 1032 to ask the password question, and 1038 to introduce the remaining questions. The ping and check now happens in 1034, 1035, and 1036.	Paul Sawyer

This document is a User-Interface specification

The purpose of this document is to lay out the user-interface in all its detail. Readers of this document are assumed to also have read the requirements specification and to have an understanding of the purpose of the application.

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01/06/05	1.5	1.0	Correct the flow out of 1030 – don't ask if caller has password if we already know they do. Minor fixes to prompt styles and text. Filled in list of current and former U.S. territories. Eliminate redundant DMs: 1400, 1410, 1420, 1430, 1440, 1460. Added Requirement IDs to all conditionals and to conditions within PlayPrompts and DB accesses.	Paul Sawyer
01/28/05	1.6	1.0	Minor tweaks Correct the table and text in section 4.1 regarding timeouts and retries.	Paul Sawyer
03/01/05	1.7	1.0	Fix prompt text changed during recording.	Paul Sawyer
03/04/05	1.8	1.0	Revised Requirement IDs in 1010, 1020, 1030, 1038, 1300, 1310, 1340, 1360, 1500, 2010, 2100, 2110	Steven Ligi
03/09/05	2.0	1.0	1. Remove references to audio icons. They will not be used. 2. Add spacer silence prompts wherever multiple prompts are to be played. (1030, 1100, 1090, 1110) 3. Add success prompts to 1032. 4. Remove "yes or no" from 1050 Initial. 5. Add success prompt for "yes" in 1060.	Paul Sawyer
04/12/05	2.1	1.0	Changes following user testing. 1. Change 1120 to a play prompt that always transfers to 2100 for an agent if one is available. 2. Improve prompt wording in 2110, 2211. 3. Remove "Goodbye" as a global command. Recognize it only in ???? 4. Refer to "agent" everywhere instead of "representative". 5. Add 'retirement' etc. to grammar for 1040 in case a caller says one of those instead of simply 'yes'.	Paul Sawyer
04/21/05	2.2	1.0	Change following review of previous version. 1. Add a "wait a minute" feature for bank account info, as had been in the DD module. Changes to 1100, and new DM 1105.	Paul Sawyer
05/02/05	2.3	1.0	"Administrative" fixes for bugs found by Q/A and others. 1. Fix prompt text to match what was recorded in the studio. 2. Change file names of "I think you said" and "Is that correct?" to match current OSDM specifications. 3. Fix Requirement IDs for confirmation options in 2211. 4. Add list of common synonyms for "yes" and "no" grammars	Paul Sawyer
05/06/05	2.4	1.0	1. Fix prompt text changed during recording. 2. Fix DTMF assignments in 2211: Main menu is 9, no DTMF equivalent for goodbye (just hand up).	Paul Sawyer
06/03/05	2.5	1.0	1. Clarify reuse of prompts ("same as ...") in 1110, 1370, 1510. Some timeout 2 prompts lack the word "still", but it will have no effect on usability. <b>Spec changes only</b> – no code changes required.	Paul Sawyer
6/30/05	2.6	1.0	1. Make the conditions in 1000 more generic, since menu item numbers change for various reasons unrelated to COA-DD. Requirement IDs were NOT changed, so we don't mess up existing test cases. 2. Clarify cases where there are multiple prompt files associated with a single condition. Affects 1040, 1050, 1060, 1070, 1090, 1100, 1110. May require code change if the misunderstanding caused the code to be written differently.	Paul Sawyer

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<b>8/10/05</b>	<b>2.7</b>	1.0	<p>Changes (Paul Sawyer):</p> <ol style="list-style-type: none"> <li>1. Correct spelling in 1370-GLB-done-Prompt-Timeout1 and 1370-GLB-done-Prompt-Timeout2.</li> <li>2. Update ScanSoft address in Properties.</li> <li>3. Add alternate entry phrases for the case of getting here from the new SpeakFreely Main Menu (added 1012, 1022).</li> <li>4. Added DMs to describe handling of Voice Genie errors. New DMs are 2101, 2111, 2112.</li> </ol> <p>Changes following the tuning report recommendations (Nadine Ozkan)</p> <ul style="list-style-type: none"> <li>- All prompt changes are in <b>red</b> (style : Table: RevisedRecordings)</li> <li>- Other changes, like grammars, parameters &amp; settings are highlighted in yellow.</li> </ul>	Paul Sawyer & Nadine Ozkan
<b>10/21/05</b>	<b>2.8</b>	1.0	<p>Changes following tuning 2</p> <ol style="list-style-type: none"> <li>1. Added 'agent' and synonyms to the confirmation (yes/no) grammar.</li> <li>2. Open issues section added.</li> <li>3. Improved Initial prompt for 1032 to clarify what we mean by password.</li> <li>4. Added new DM 1130 for case where caller is not qualified to perform the function, offering Main Menu or hang up. This applies if caller says "no" in 1040, 1060, or 1070.</li> <li>5. Improve synonyms in 'yes' grammar for 1050.</li> <li>6. Change 1100 grammar from "I have the numbers" to "I'm ready" to avoid recognition confusion with "I don't have them".</li> <li>7. In 1105, add synonyms for I'm Ready, and add a new option Repeat to allow callers to hear the question again.</li> <li>8. In 1110, add some synonyms for several global commands.</li> </ol>	Paul Sawyer
<b>10/25/05</b>	<b>2.9</b>	1.0	<ol style="list-style-type: none"> <li>1. Change in policy from SSA: Of the four qualifying questions, only "not receiving benefits" should result in the message that the caller cannot do the function even with an agent. Failure in any of the other three qualifying questions should make the Agent option available, as had been done prior to versions 2.8. Affects 1060 and 1070, which have been reverted to their previous behavior, and prompt 1130-GLB-CantDoThat-Prompt-Initial1 which is now specific to not receiving benefits.</li> <li>2. Add retry and timeout prompts to 1130 that had been inadvertently omitted.</li> </ol>	Paul Sawyer
<b>10/27/05</b>	<b>2.10</b>	1.0	<ol style="list-style-type: none"> <li>1. Correct prompt text for 1130-GLB-CantDoThat-Prompt-Help1.</li> </ol>	Paul Sawyer
<b>12 Dec 05</b>	<b>2.11</b>	1.0	<ol style="list-style-type: none"> <li>1. Edited prompt 1100-GLB-KnowBank-Prompt-Help3 to mention Don't Have Them and Wait A Minute.</li> </ol>	Paul Sawyer

<b>2 Feb 06</b>	<b>2.12</b>	1.0	<p>Changes for Tuning 3:</p> <ol style="list-style-type: none"> <li>1. Move Open Issues about one-step correction and grammar duplications into specific modules. Remove issue about touch tone sounds coming through to recognizer – seems to be fixed now.</li> <li>2. Clarify that "help" in not in any grammar.</li> <li>3. Improve the flexibility of the "agent" synonyms grammar.</li> <li>4. Change the requirement regarding agent synonyms in confirmation (yes/no) grammars.</li> <li>5. Downweight "I don't know it" in the Help grammar.</li> <li>6. Clarify Help option grammar in 1032.</li> <li>7. In 1050, tweak grammar and set to Never confirm.</li> <li>8. In 1100, change grammar for "I'm ready" to make "I'm" optional. Set DontHave option to Always Confirm. Improve the DontHave confirmation prompt so that it's clear what a "no" response means. Specify one-step correction for "no, I have them".</li> <li>9. Highlight sensitivity setting in 1105, which was specified at the previous tuning but may not have been implemented.</li> <li>10. Add Goodbye option in 1370.</li> <li>11. Add synonyms for goodbye in 1510 to catch some OOVs.</li> </ol>	Paul Sawyer
<b>5 Feb 06</b>	<b>2.13</b>	1.0	<p>Changes after review and discussion:</p> <ol style="list-style-type: none"> <li>1. Add support for blocked accounts. Affects 1340.</li> <li>2. Fixed wording in 1130 to explain other options when caller is disqualified.</li> </ol>	Paul Sawyer
<b>3 March 06</b>	<b>2.14</b>	1.0	<ol style="list-style-type: none"> <li>1. Remove conflicting specifications for the grammar for "agent" synonyms, and refer instead to the agent grammar in the N8NN UI spec.</li> <li>2. Change handling of max retry and max timeout in 1510, so that it hangs up instead of the default behavior to go to 2010. Field experience showed a significant number of cases where infinite looping occurred when the caller said nothing. These may be undetected hang-ups, but even if a caller is still there, they've had every explicit opportunity to reach an agent or the main menu, so hanging up is a reasonable action.</li> </ol>	Paul Sawyer
<b>21 Aug 06</b>	<b>2.15</b>	1.0	<p>Changes based on Tuning 4.</p> <ol style="list-style-type: none"> <li>1. Note that "agent" grammar needs tightening.</li> <li>2. 1032: Add "I don't know" to "maybe" grammar so that it's caught as "maybe" rather than as "no". Remove "agent" global grammar for this DM.</li> <li>3. 1130 remove Agent global grammar but keep other globals. Add "menu" as synonym for "main menu". Tweak initial prompt to suggest they can try again.</li> <li>4. 1050: Add "SSI" as another synonym for "yes". Tweak low-confidence threshold.</li> <li>5. 1040: Improve prompts to be clear that SSI benefits don't count, and catch "SSI" as a synonym for "no".</li> <li>6. 1090: Remove agent synonyms for this DM.</li> <li>7. 1100: Add "yes" and "I have it" as synonyms for "I'm ready". Set barge-in sensitivity to less sensitive.</li> <li>8. 1110: Add note about missing grammars for "main menu" and "question".</li> <li>9. 1510: Add "agent agent" as synonym for "agent" in this DM.</li> </ol>	Paul Sawyer

23 Aug 06	2.16	1.0	Change following review of tuning changes. 1. Re-order the qualification questions about getting benefits (1040) and getting SSI (1050). If we ask the SSI question first, the benefits question can be simpler. 2. Rework 1500 and 1510 to help reduce agent requests: Add silence after 1500. Flush speech input before entering 1510. Re-order the prompt options in 1510 to put Agent last. 3. Minor change to 1050-GLB-GetSSI-Prompt-Initial (removal of "First"), to improve flow from 1038.	Paul Sawyer
5 Sept 06	2.17	1.0	1. Rework handling of "more information" for 1130 so that the Agent synonyms are recognized only if the caller asks for and hears the "more information" message. 2. Edit prompts for 1090 to omit mention of Agent synonyms, which are no longer available in this DM. 3. Fixed 1050-GetSSI-YN which should send the caller to 1130 – not 11210 – if they are receiving SSI.	Paul Sawyer/Phil Profili
8 Sept 06	2.18	1.0	Removing the confusion over handling of SSI recipients: 1. In 1040, if a caller says "no" then 1130 is the correct destination, but if they say "SSI" then they should go to 1120 2. In 1050, callers who respond in the affirmative should go to 1120.  Clarified confirmation prompting in 1130_CantDoThat_DM.	Phil Profili
23 Apr 07	2.18	1.0	Added DB 1065 Added DB 1365	Sean Stallings VZB
22 May 07	2.19	1.0	Changed message number for silences from 02000/03000 to 20000/30000	Sean Stallings VZB
25 May 07	2.20	1.0	Updated 1060	Sean Stallings VZB
25 May 07	2.21	1.0	Updated 1060	Sean Stallings VZB
09 August 07	2.22	1.0	Corrected DB 1065	Sean Stallings VZB
22 August 07	2.23	1.0	Corrected dates	Sean Stallings VZB
06 Sep 07	2.24	1.0	Removed default global from retry 1 and retry 2 messages Added appropriate prompting for 1110-GLB-CantProceed-Prompt-Help1 and Help2 Added "that" to text of Message Number 10407	Sean Stallings VZB
29 Feb 08	2.25	1.0	Added more detailed privacy statement to 1.1.5 Business rules	Sean Stallings VZB
15 April 08	2.26	1.0	Updated Module 1030, message 10303, reduced pause to 1 second. Updated Module 1500, reduced 3 second silence to 1 second.	Sean Stallings VZB
21 April 08	2.26	1.0	Updated footer to the correct UI version 2.26 Updated [silence] message numbers to reflect correct numbering system	Becky Stallings, VzB
05 May 08	2.27	1.0	Updated Section 1.1.5 Business Rules, removed wording regarding privacy statements in other applications. Added Privacy statement to Global Behavior chapter.	Sean Stallings VZB

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<b>26 August 08</b>	<b>2.28</b>	1.0	Highlighted Barge-in changes in <b>pink</b>  For BBN Findings Effort: <ol style="list-style-type: none"> <li>1. Updated module 1032, simplified wording for message 10323</li> <li>2. Updated module 1040, simplified wording for message 10403</li> <li>3. Updated Module 1050, simplified wording for message 10503</li> <li>4. Updated module 1060, simplified wording for message 10603</li> <li>5. Updated module 1070, simplified wording for message 10703</li> <li>6. Updated module 1090, simplified wording for message 10903</li> </ol>	Sean Stallings VZB
<b>05 September 08</b>	<b>2.29</b>	1.0	Updated Module 1032, corrected wording for Retry 2, incorrect prompt had been changed for BBN Findings Effort.	Sean Stallings VZB
<b>09 September 08</b>	<b>2.30</b>	1.0	Updated modules 1032, 1040, 1050, 1060, 1070, 1090, 1100, 1105, 1110, 1130, 1140, 1370, 1510, 2211. Updated all retry 1 and retry prompts, [Global Default] tag now shows before the wording for each prompt – this resolves ticket 22304.	Sean Stallings VZB
<b>16 September 08</b>	<b>2.31</b>	1.0	Highlighted BBN Findings changes in <b>Green</b> . Added Verizon proprietary statement to title page and page headers.	Sean Stallings VZB

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# Chapter 1: Background and Motivation

The Social Security Administration serves callers currently receiving benefits as well as the general population with self-service and informational assistance. SSA is looking for ways to improve self-service options for both calling populations. Existing self-service options are currently available from the SSA web site or via the SSA N8NN telephone interface. SSA would like to enhance the telephone based self-service options to include advanced speech with a real-time request processing. The self-service functions contained within the scope of this project are 1) Change of Address, and 2) Set-up or change of Direct Deposit.

## 1.1 Executive Summary

### 1.1.1 What the application does

The Change of Address / Direct Deposit application enables callers who are receiving Social Security benefits to change their mailing address and set up or change direct deposit of benefits to a bank account.

### 1.1.2 Social Security Administration's goals

Primary goals of the speech application are to:

- Provide universal access to the SSA's automated services by providing an access channel for callers including the visually impaired.
- Offer real-time handling of change-of-address and direct-deposit requests without needing to transcribe information collected by the existing automated Touch Tone system. Doing so will eliminate transcription time and transcription errors, as well as minimize the time lag between callers making the request and transcription of the request.

One business objective for the speech application is cost reduction. Automating calls and minimizing the number of calls to SSA agents is the primary mechanism towards this goal. As such, the application will be implemented in a way to streamline and automate requests.

### 1.1.3 Callers' goals

Callers are seeking simple self service.

### 1.1.4 Caller profiles

Callers who receive benefits are either retired or disabled.

### 1.1.5 Business rules

The privacy of caller's personal information must be protected. Caller identity must be verified before allowing changes to information that determines where benefit checks are sent.

## 1.2 Aesthetics

Jill converses with caller in a clean yet informal, role-appropriate female voice. She is friendly, competent and resourceful. Even when she's unable to complete a caller's request, she usually provides helpful suggestions on how they can proceed.

## Chapter 2: About the Callers

Caller characteristics are believed to be mostly similar to those described in the UI specification for the BEVE-MRC application that is Phase 1 of the call automation project. Those characteristics are incorporated here by reference.

SSA anticipated that the number of repeat callers will be higher for the Change-of-Address function due to callers who spend time in two or more locations each year, such as living in Florida for the winter and a northern state for the summer. For this reason, this application needs to encourage callers to set up and use a Personal Identification Number (PIN) so that they can avoid the lengthy verification process on each call.

## Chapter 3: Call Examples

Callers arrive at this portion of the system by navigating through the N8NN main menu system. This can take a minute or more of DTMF interactions. The design of the interactions should accommodate this change in interaction style between the DTMF portion of the larger system and the “conversational” nature of the Speech Application. This may be accomplished through audio iconography, signposting and prompt text.

Callers have explicitly chosen the self service route, and are transferred to the speech system AFTER choosing either the “change of address” or “direct deposit” path. The Speech system will receive a flag signifying the task the caller is attempting to complete. For both functions, caller identity must first be verified using either a social security number (SSN) plus password, or SSN plus several items of personal information such as mother’s maiden name.

*The sample calls shown here are an early draft and do not necessarily reflect the current call flow or wording. Sample calls will be updated at a later time.*

### 3.1 Sample Call Design Considerations

#### 3.1.1 Verboseness

Jill’s audio and prompts are designed to accommodate the vast majority of callers whose VUI experience is either limited or perhaps nonexistent. The verbiage is designed to convey a clear mental model of how Jill behaves and what her capabilities are. This subtly helps callers remember to avoid chatty responses.

#### 3.1.2 Confirmation Strategy

All of the actual data elements need to be confirmed at some point. Where possible confirmations are grouped, as with full name and full address so that with high-confidence recognitions, callers hear only one confirmation. Where confidence is lower, or where an item isn’t part of a logical group, individual data items are confirmed.

#### 3.1.3 Longevity

Since callers aren’t expected to use the system frequently (say twice a year at most), Jill is slightly biased towards relatively severe hand-holding to minimize the number of callers who opt for a live agent. Jill doesn’t advertising operator assistance, though she will eventually recommend it as a path of last resort.

### 3.2 Call #1: Abbreviated knowledge base auth plus change of address, no problems

This example shows what the call flow *could* be if we're allowed to ask fewer questions for verification. The present client requirement is to ask all of the questions shown in Call 2, but there's a chance they'll be able to relax that requirement to the subset shown here.

prompt ID	prompt text
CallOne0010	[Leisurely pace, not too fast.] Hello! You've reached the automated Change of Address service. I'll be asking you several questions, and you can SPEAK your answers. Just be sure to speak clearly and loud enough for me to hear over the phone. Note that this call may be monitored or recorded for quality assurance purposes.
CallOne0015	If you've gotten to the wrong place, or you change your mind about proceeding, you can say * Main Menu * at any time. And if you have a question about anything I ask you, you can say * Question * at any time. <2 sec pause> OK, let's get started. First I have to ask a few questions to see whether you can use this automated service.
CallOne0020	Are you currently receiving Social Security disability, retirement, or survivor benefits? Yes or no.
CallOne0030	Yes.
CallOne0040	OK. And are you also receiving S S I or supplemental security insurance payments? Yes or no.
CallOne0050	No.
CallOne0060	Alright. Are you currently residing in a state or territory of the United States?
CallOne0070	Yes.
CallOne0080	Good. Is the change you're calling about for your OWN benefit or payment?
CallOne0090	Yes.
CallOne0100	Alright. Now, let's see what we need to update. Please say Change My Address, Change My Phone Number, or Change Both.
CallOne0110	Change address.
CallOne0120	OK, I can help you with that.
CallOne0130	Do you have a password that was issued to you by the Social Security Administration? Yes or No. <4 sec pause> If you aren't sure, just say NO and we'll go on.
CallOne0140	No.
CallOne0150	That's OK. Before I can make any changes, I'll need to ask you some questions to verify who you are. There are just four questions so it won't take long. You'll need to know your social security number, and the zip code of your new address. Do you have both of those numbers handy?
CallOne0160	Yes.
CallOne0170	Great. What's your social security number?
CallOne0180	One two three, four five, four three two one.
CallOne0190	So that's * one * two * three *** four * five *** four * three * two * one. Is that correct?
CallOne0200	Yes.
CallOne0210	Now I need your full name.

CallOne0220	Let's start with your last name. Please say and spell your last name. For example, if your last name was Kusack, you'd say "Kusack spelled K U S A C K."
CallOne0230	<i>Jones spelled J O N E S.</i>
CallOne0240	And now let me get your first name including spelling.
CallOne0250	<i>Christine spelled C H R I S T I N E.</i>
CallOne0260	Let me read that back. Last name * Jones * spelled * J O N E S. First name * Christine * spelled * C H R I S T I N E. Did I get that right?
CallOne0270	<i>Yes.</i>
CallOne0280	Next I need to know your date of birth with month, day, and year, such as January fifth, nineteen thirty five. What's your date of birth?
CallOne0290	<i>December twenty fifth nineteen thirty nine.</i>
CallOne0300	That's * December * twenty fifth * nineteen thirty nine. Is that correct?
CallOne0310	<i>Yes.</i>
CallOne0320	Got it. Hold on while I check our database. It may take a few seconds. <4 sec pause> OK, everything checks out. Now let's get on to your address change.
CallOne0330	I need to know the effective date for this change. You can say Immediately, or say a specific date in the next three months.
CallOne0340	<i>Immediately.</i>
CallOne0350	Got it. Now for the new address, ...
CallOne0360	I need to get the zip code first so I can look up the city and state. Please say the five-digit zip code now.
CallOne0370	<i>Oh two one three eight.</i>
CallOne0380	OK, I got the city and state information from your zip code. Now I need just your street address, P. O. Box, or rural route number. For example, you could say 1 2 3 Main Street West, or P. O. Box 1 2 3 4 5. Go ahead and say your address.
CallOne0390	<i>Eleven Garden Street</i>
CallOne0400	If there's an apartment number, please say it now. Otherwise, just say No Apartment.
CallOne0410	<i>No apartment.</i>
CallOne0420	Let me make sure I've got it right. I have * Eleven * Garden Street * Cambridge * Massachusetts * zero two one three eight. Is that correct?
CallOne0430	<i>Yes.</i>
CallOne0440	Hold on while I send your information. This may take a few seconds. <4 sec pause> OK, the update was accepted. Your information change has been sent for processing which may take up to three business days, and you won't be able to make any other changes during that time. As you requested, this change will be effective on * December * third * two thousand four.
CallOne0450	If there's anything else we can do for you, I can either put you back at the main menu, or transfer you to an agent. If you're finished, you can just hang up. So, Main Menu, Agent, or Goodbye?
CallOne0460	<i>Goodbye.</i>
CallOne0470	Thank you. Goodbye.

### 3.3 Call #2: Full knowledge base auth plus change of address, lots of confirmations

This example shows how lengthy a call could be with all the verification questions and trouble understanding the caller.

prompt ID	prompt text
CallTwo0010	[Leisurely pace, not too fast.] Hello! You've reached the automated Change of Address service. I'll be asking you several questions, and you can SPEAK your answers. Just be sure to speak clearly and loud enough for me to hear over the phone. Note that this call may be monitored or recorded for quality assurance purposes.
CallTwo0015	If you've gotten to the wrong place, or you change your mind about proceeding, you can say * Main Menu * at any time. And if you have a question about anything I ask you, you can say * Question * at any time. <2 sec pause> OK, let's get started. First I have to ask a few questions to see whether you can use this automated service.
CallTwo0020	Are you currently receiving Social Security disability, retirement, or survivor benefits? Yes or no.
CallTwo0030	<i>(something mumbled)</i>
CallTwo0040	Sorry, I didn't hear you. I need to know whether you're currently receiving Social Security benefits in the form of a check or direct deposit. Please speak clearly and say Yes or No.
CallTwo0050	Yes.
CallTwo0080	OK. And are you also receiving S S I or supplemental security insurance payments? Yes or no.
CallTwo0090	No.
CallTwo0100	Are you currently residing in a state or territory of the United States? Yes or no.
CallTwo0110	Yes.
CallTwo0120	Is the change you're calling about for your OWN benefit or payment?
CallTwo0130	Yes.
CallTwo0140	Alright. Now, let's see what we need to update. Please say Change My Address, Change My Phone Number, or Change Both.
CallTwo0150	<i>Well, I moved so I guess I need to change everything.</i>
CallTwo0160	I'm sorry, I didn't understand you. I only understand certain words, so let's try again. You can say Change My Address. Or you can say Change My Phone Number. Or, Change Both.
CallTwo0170	<i>Change both.</i>
CallTwo0180	OK, I can help you with that.
CallTwo0190	Do you have a seven-digit password that was issued to you by the Social Security Administration? Yes or No. <4 sec pause> If you aren't sure, just say NO and we'll go on.
CallTwo0200	<i>What?</i>
CallTwo0210	I'm sorry, I didn't understand you. If you have a seven-digit password that was mailed to you by the Social Security Administration, say YES. If you don't have a password, or you aren't sure, just say NO and we'll go on. <4 sec pause> Yes or No.
CallTwo0220	No.



CallTwo0230	That's OK. Before I can make any changes, I'll need to ask you some questions to verify who you are. There are eight questions and it'll take a couple of minutes to go through them. In addition to questions about your name and date and place of birth, you'll need to know your social security number, the dollar amount of your last benefit payment, and the zip code of your new address. Do you have all of those numbers handy?
CallTwo0240	<i>I think so.</i>
CallTwo0250	I'm sorry, I didn't understand you. If you have your social security number, the amount of your last benefit payment, AND your new zip code with you right now, please say YES. Otherwise, say NO.
CallTwo0260	<i>Yes.</i>
CallTwo0270	Great. What's your social security number?
CallTwo0280	<i>One two three, four five, four three two one.</i>
CallTwo0290	So that's * one * two * three *** four * five *** five * three * two * one. Is that correct?
CallTwo0300	<i>No.</i>
CallTwo0310	Sorry, my mistake. Let's try again. Please say your social security number, or enter it on your telephone keypad.
CallTwo0320	<i>One two three, four five, four three two one.</i>
CallTwo0330	So that's * one * two * three *** four * five *** four * three * two * one. Is that correct?
CallTwo0340	<i>Yeah.</i>
CallTwo0350	Sorry. Did I get the number correct? Yes or No.
CallTwo0360	<i>YES!</i>
CallTwo0370	Thank you. Now I need your full name.
CallTwo0380	Let's start with your last name. Please say and spell your last name. For example, if your last name was Kusack, you'd say "Kusack spelled K U S A C K.
CallTwo0390	<i>Smyth spelled S M Y T H.</i>
CallTwo0400	I think you said * Smith * spelled * S M I T H. Is that correct?
CallTwo0410	<i>No.</i>
CallTwo0420	Sorry, just spell your last name for me.
CallTwo0430	<i>S M Y T H.</i>
CallTwo0440	I think you said * Smyth * spelled * S M Y T H. Is that correct.
CallTwo0450	<i>Yes.</i>
CallTwo0460	And now let me get your first name including spelling.
CallTwo0470	<i>Davida spelled D A V I D A.</i>
CallTwo0480	I think you said Davida spelled D A V I D A. Is that correct?
CallTwo0490	<i>Yes.</i>
CallTwo0500	Let me read that back. Last name * Smyth * spelled * S M Y T H. First name * Davida * spelled * D A V I D A. Did I get that right?
CallTwo0510	<i>Yes.</i>
CallTwo0520	Good. Some people have another last name that is associated with their social security account, such as a maiden name or a professional name. Do you have an ALTERNATE last name? Yes or no?
CallTwo0530	<i>Yes, Jones.</i>

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CallTwo0540	Please say and spell your other last name.
CallTwo0550	<i>Jones spelled J O N E S.</i>
CallTwo0560	Let me read that back. That's * Jones * spelled * J O N E S. Did I get that right?
CallTwo0570	<i>Yes.</i>
CallTwo0580	Next I need to know your date of birth with month, day, and year, such as January fifth, nineteen thirty five. What's your date of birth?
CallTwo0590	<i>December twenty fifth, nineteen oh nine.</i>
CallTwo0600	That's * December * twenty fifth * nineteen oh five. Is that correct?
CallTwo0610	<i>No, it's nineteen oh NINE.</i>
CallTwo0620	Sorry, my mistake. Please say your full date of birth one more time.
CallTwo0630	<i>December twenty fifth nineteen oh nine.</i>
CallTwo0640	That's * December * twenty fifth * nineteen oh nine. Is that correct?
CallTwo0650	<i>Yes.</i>
CallTwo0660	I also have to ask your mother's maiden name.
CallTwo0670	Please say and spell your mother's maiden last name.
CallTwo0680	<i>Schwartz spelled S C H W A R T Z.</i>
CallTwo0690	Let me read that back. That's * Schwartz * spelled S C H W A R T Z. Did I get that right?
CallTwo0700	<i>Yes.</i>
CallTwo0710	Got it. Only two more questions and you'll be verified.
CallTwo0720	I need to know where you were born. Please say the name of the STATE or territory where you were born, or say OTHER if it wasn't a state or territory.
CallTwo0730	<i>North Dakota.</i>
CallTwo0740	I think you said * South Dakota. Is that correct?
CallTwo0750	<i>No, north.</i>
CallTwo0760	Sorry, my mistake. Please tell me the state or territory again.
CallTwo0770	<i>NORTH Dakota.</i>
CallTwo0780	I think you said * North Dakota. Is that correct?
CallTwo0790	<i>Yes.</i>
CallTwo0800	One last question. What was the amount of the last benefit payment you received in dollars and cents?
CallTwo0810	<i>One forty seven fifty three.</i>
CallTwo0820	I'm sorry, I didn't understand that. Please say the amount as dollars and cents, such as one hundred twenty nine DOLLARS and thirty seven CENTS.
CallTwo0830	<i>One hundred forty seven dollars and fifty three cents.</i>
CallTwo0840	I think you said * one * hundred * forty seven * dollars and * fifty three * cents. Is that correct?
CallTwo0850	<i>Yes.</i>
CallTwo0860	Got it. Hold on while I check our database. It may take a few seconds. <4 sec pause> OK, everything checks out. Now let's get on to your address change.
CallTwo0870	I need to know the effective date for this change. You can say Immediately, or say a specific date in the next three months.

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CallTwo0880	<i>Immediately.</i>
CallTwo0890	Got it. Now for the new address, ...
CallTwo0900	I need to get the zip code first so I can look up the city and state. Please say the five-digit zip code now.
CallTwo0910	<i>Oh two one three eight.</i>
CallTwo0920	Please say the five-digit zip code again, saying the digits one by one.
CallTwo0930	<i>Oh. Two. One. Three. Eight.</i>
CallTwo0940	OK, I got the city and state information from your zip code. Now I need just your street address, P. O. Box, or rural route number. For example, you could say 1 2 3 Main Street West, or P. O. Box 1 2 3 4 5. Go ahead and say your address.
CallTwo0950	<i>Eleven Garden Street</i>
CallTwo0960	Sorry, I didn't understand that. I need your street address or P. O. box number. For example, you can say one twenty-four Belvedere Street, or P. O. Box 1 2 3 4 5. I also understand rural routes. Please say your address now.
CallTwo0970	<i>Eleven. Garden. Street.</i>
CallTwo0980	I think you said * eleven * Garden Street. Is that correct?
CallTwo0990	<i>Yes.</i>
CallTwo1000	If there's an apartment number, please say it now. Otherwise, just say No Apartment.
CallTwo1010	<i>No apartment.</i>
CallTwo1020	Let me make sure I've got it right. I have * eleven * Garden Street * Cambridge * Massachusetts * zero two one three eight. Is that correct?
CallTwo1030	<i>Yes.</i>
CallTwo1040	Great! Hold on while I send your information. This may take a few seconds. <4 sec pause> OK, the update was accepted. Your information change has been sent for processing which may take up to three business days, and you won't be able to make any other changes during that time. As you requested, this change will be effective on * December * third * two thousand four.
CallTwo1050	If there's anything else we can do for you, I can either put you back at the main menu, or transfer you to an agent. If you're finished, you can just hang up. So, Main Menu, Agent, or Goodbye?
CallTwo1060	<i>G'Bye.</i>
CallTwo1070	I think you said Goodbye. Is that correct?
CallTwo1080	<i>YES!</i>
CallTwo1090	Thank you. Goodbye.

### 3.4 Call #3: Password plus direct deposit, no problems

This example shows how quick the flow could be if the caller has a password. It also shows an example of help.

prompt ID	prompt text
CallThree0010	[Leisurely pace, not too fast.] Hello! You've reached the automated Direct Deposit service. I'll be asking you several questions, and you can SPEAK your answers. Just be sure to speak clearly and loud enough for me to hear over the phone. Note that this call may be monitored or recorded for quality assurance purposes.
CallThree0020	If you've gotten to the wrong place, or you change your mind about proceeding, you can say * Main Menu * at any time. And if you have a question about anything I ask you, you can say * Question * at any time. <2 sec pause> OK, let's get started. First I have to ask a few questions to see whether you can use this automated service.
CallThree0030	Are you currently receiving Social Security disability, retirement, or survivor benefits? Yes or no.
CallThree0040	Yes.
CallThree0050	OK. And are you ALSO receiving S S I or supplemental security insurance payments?
CallThree0060	No.
CallThree0070	Alright. Are you currently residing in a state or territory of the United States? Yes or no.
CallThree0080	Yes.
CallThree0090	OK. Is the change you're calling about for your OWN benefit or payment?
CallThree0100	Yes.
CallThree0110	Good. Do you have a password that was issued to you by the Social Security Administration? Yes or No.
CallThree0120	Yes.
CallThree0130	Great, that'll make this much quicker.
CallThree0140	Before I can make any changes, I'll need to ask you a couple of questions to verify who you are. You'll need to know your social security number * your password * your bank account number * and the routing number for YOUR bank account, which you can get from one of your checks, or from your financial institution. Do you have all of those numbers handy?
CallThree0150	Yes.
CallThree0160	OK, here's the first question.. What's your social security number?
CallThree0170	One two three, four five, four three two one.
CallThree0180	So that's * one * two * three *** four * five *** four * three * two * one. Is that correct?
CallThree0190	Yes.
CallThree0200	What's your seven-digit password?
CallThree0210	Seven nine two oh oh six one.
CallThree0220	That's * seven nine two * zero zero * six one. Did I get it right?
CallThree0230	Yes.
CallThree0240	Got it. Hold on while I check our database. It may take a few seconds. <4 sec pause> OK, everything checks out.
CallThree0250	Now let's move on to your direct deposit information.

CallThree0260	For the account you want to use, are you the owner of the account?
CallThree0270	Yes.
CallThree0280	Good. Now tell me the type of account this is. Your choices are * Checking * Savings * Investment * or * Other.
CallThree0290	Checking.
CallThree0300	OK. I need to know the effective month for this change. Because of the lead time in processing checks, your choices are * January * February * or * March.
CallThree0310	February.
CallThree0320	Sure * February * is fine.
CallThree0330	Now, you'll need to know two numbers that you can find on the bottom of a check, or you can get them from your financial institution. The first is a nine-digit bank routing number. <1 sec pause> The second is your personal account number. <1 sec pause> If you have these numbers, say I Have The Numbers. Otherwise say More Information.
CallThree0340	More information.
CallThree0350	Sure, here's a bit more information about those numbers. The bank routing number is exactly nine digits and is printed on the bottom of each check in between two marks that look like a vertical bar followed by a colon.
CallThree0360	Your account number is some number of digits ending with a symbol that looks like two vertical bars followed by a square dot. Don't confuse your ACCOUNT number with your CHECK number that is both at the bottom and at the top right of your check.
CallThree0370	If you don't have these numbers, you'll need to get them from your financial institution before we can set up or change direct deposit. If you DO have the numbers now, say I Have The Numbers.
CallThree0380	If you need to speak with an agent, say Agent. If you'd like to do something else, say Main Menu. If you want to call again later, say Goodbye or just hang up. To hear this information again, say More Information.
CallThree0390	I have the numbers.
CallThree0400	Great. What's the nine-digit bank routing number?
CallThree0410	One two four seven zero two six four four.
CallThree0420	That's * one two four * seven zero * two six * four four. Is that correct?
CallThree0430	Yes.
CallThree0440	Got it. And what's your account number?
CallThree0450	Seven six five four three two.
CallThree0460	That's * seven * six * five *** four * three * two. Is that correct?
CallThree0470	Yes.
CallThree0480	Alright. Hold on while I send your information. This may take a few seconds. <4 sec pause> OK, the update was accepted. Your information change has been sent for processing which may take up to three business days, and you won't be able to make any other changes during that time. This change will be effective with your * February * benefit payment.
CallThree0490	If there's anything else we can do for you, I can either put you back at the main menu, or transfer you to an agent. If you're finished, you can just hang up. So, Main Menu, Agent, or Goodbye?
CallThree0500	Goodbye.
CallThree0510	Thank you. Goodbye.



# Chapter 4: Global Behavior

## 4.1 Time-outs and Retries

While the retry prompts are specified in the DialogModule tables, they are to be preceded by the appropriate apology prefix as outlined below:

Retry 1 & 2	IF retry 1	Message Number 00110	upon rejection of speech	apology_re1	I'm sorry, I didn't understand you.
		Message Number 00111	upon rejection of speech		My mistake.
	IF retry 2	Message Number 00112	upon confirmation	apology_re2	I'm sorry, I still didn't understand you.
		Message Number 00113	upon rejection of speech	apology_re2_	My mistake again.
			upon confirmation	[...]	<retry prompt(s) specified in DialogModule table>

Note that Timeout prefixes for the *collection* phase (rejection of speech) are included as part of the Timeout prompts in each DM, whereas Timeout prefixes for the *confirmation* phase are usually not specified in the DM tables.

Timeout 1		apology_to1	I'm sorry, I didn't hear anything.
Timeout 2		apology_to2	I'm sorry, I still didn't hear anything.

Max. timeout is globally set to 2 – exceptions will be indicated in the tables.  
 Max. retry is globally set to 2 – exceptions will be indicated in the tables.  
 When either max timeouts or max retries is reached, transfer to the DM indicated for this purpose.

## 4.2 Privacy

No information collected in this application is considered sensitive.

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## 4.3 System Timeout

In addition to the regular timeouts, there is also a global *System Timeout*, set to a specific number of minutes. If the duration of one call exceeds this System Timeout, the call-flow will be interrupted with the prompt below to inform the caller that the maximum amount of time for the call duration has been exceeded. After the play-out of this prompt, the call will be terminated. (This also means that *barge-in* is OFF during the play-out of these prompts, since there is no recognition state following.)

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System Timeout	Message Number	Time Limit	System Timeout message	
	00114	15 minutes	system_timeout_a	I'm sorry to interrupt, but it looks like you're having trouble since we've been on this call for more than ...
			[CPR]	<system-timeout in minutes> e.g. "...30..."
	00115		system_timeout_b	...minutes. I'll need to hang up now. You might want to call back and ask to speak with an agent. Good bye.

## 4.4 Help prompts

Unless otherwise specified by the DialogModule table, the default behavior will always be to 're-enter' the DialogModule directly after the Help prompt has played, so the application will listen for the input again. It does this while resetting any timeout and retry counters, thus as if it were the initial try, but *without playing the initial prompt again*. This is because the prompt for the input will be contained *in the Help prompt itself*, perhaps with a slightly different verbiage.

In summary:

- 1) Play Help prompt(s) specified in the UI table
- 2) Unless otherwise specified in the table, re-enter the same state to listen for caller input
- 3) Do *not* play the initial prompt of this state after the Help prompt

Important note: caller can barge-in on the Help prompt (unless otherwise specified by the table) which will cause the Help prompt to immediately *stop* playing and the recognizer to parse the caller's input according to the vocabulary of the state following the Help prompt (this state typically is the same state). While the caller can start speaking before the end of the Help prompt, the *beginning\_of\_speech* timer will not start until the Help prompt has finished playing (which is the same behavior as with any other prompt played that callers can barge-in on).

Note well that *Help* is an historical term for assistance to callers. The word "help" is specifically *not* included in the grammars because as a single-syllable global command it causes too many recognition problems. Callers are advised that they can say "more information" and there are other synonyms listed in the global table. There is also evidence

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


from usability studies that callers are more likely to make use of a neutral term such as “more information” that does not make them feel inadequate by asking for help.

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## 4.5 Global Commands and Global Prompts

### Global Commands Vocabulary

Speech Input			
This table specifies the global commands that can be spoken from anywhere in the application. The application behavior upon these commands is always the same, unless the DialogModule specifically overrides the global behavior.			
Commands	DTMF	Action (unless re-specified by the module)	Confirm.
Question [I] don't know [it] (but downweight this one in the grammar) More information NOTE: "Help" is NOT in this grammar, nor in any grammar for this application unless specifically noted for a single DM table.	*	First play the Help prompt as specified for the module, then wait for input again. (New prompt for input will be part of each Help message.)	Never
(Refer to the N8NN UI spec for the grammar for agent synonyms.) Tuning 4 recommends "tightening" the agent grammar so that phrases without verbs are not included. A new Agent grammar will be supplied for use in both N8NN and COA-DD.	0	Go to: 2100-AfterHours-Check	Always
Main menu [please]	9	Go to: 2212-ThanksBeforeReturn-Msg	If necessary
Confirmation prompts			
Option	Name	Wording	
Operator	gl_conf_operator	[I think you said] you want to talk to an agent. [Is that correct?]	
Main menu	gl_conf_mainmenu	[I think you said] you want to return to the Main Menu. [Is that correct?]	
Developer Notes			
NOTE ON GOODBYE: Recent wisdom among UI designers is that Goodbye is seldom used by callers and therefore only causes recognition problems. We have traditionally included Goodbye because some callers like the closure it seems to provide. However, the usability data we've accumulated suggests that it causes more problems than it solves. Therefore, we propose to remove Goodbye from this application, and simply offer callers the option of hanging up.			

### Table: Auxiliary Global Prompts

Generic Prompts	
Name	Wording
default_confirmation_initialprompt_part1	I think you said ...
default_confirmation_initialprompt_part2	Is that correct?

### Table: Grammar Synonyms

Basic grammar	
Basic grammar	Synonyms
yes	yeah, sure, correct, that's correct, yes ma'am, right, OK

no	nope, no that's not it, no that's not right, no ma'am, wrong

## Note on Confirmation Grammars

The preceding requirement has been rescinded — tuning studies have shown that including “agent” synonyms in confirmation grammars catches too many utterances that are really statements of Yes or No. Also, including agent synonyms interferes with one-step correction where it is used. So agent synonyms should **not** be in confirmation grammars unless there is an explicit note otherwise.

## 4.6 DTMF Collection

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### 4.6.1 Termination of digit strings using the pound sign

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Any state prompting for input of which the DTMF equivalent is a digit string, such as the social security number, should accept the DTMF ‘pound’ sign as the immediate terminator of such a string. Naturally, this ‘pound’ sign should not be taken as part of the actual input or passed on as such to other parts of the application or any databases; it is merely an indicator that the digits before it form the complete numeric input.

Single-digit DTMF equivalents—such as ‘1’, ‘2’, ‘3’, etc. for menu options—do *not* allow a terminating character.

### 4.6.2 Invalid DTMF input should be rejected

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Any input that does not match to a menu option or other command, or does not match to numeric input prompted for at that point, should be rejected by the application, and lead to the application entering a retry. For example, when a state has only four menu options with DTMF equivalents ‘1’ through ‘4’, we should enter a rejection if someone enters ‘5’ at that point. Another example would be a state asking for a sequence of digits: if someone provides DTMF input that contains an asterisk in the sequence, we should reject that input as well. (An alternative would be to go to *Help* in that situation, since ‘\*’ is the DTMF equivalent for it, but it’s probably better to just reject digit-strings containing an ‘\*’.) As outlined in the paragraph 4.6.1 “Termination of digit strings using the pound sign” above, the DTMF ‘pound’ sign should be accepted as a valid terminator of digit strings.

Please note that DTMF equivalents of global commands should always be accepted, even if they are not explicitly offered by any of the prompts in a given state. Examples of these are the ‘star’ sign for *Help* and ‘0’ for an *Associate*.

### 4.6.3 End-of-DTMF timeout

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The application’s response time to DTMF input should always be as short as possible, but will depend at any point on whether the DTMF input given so far in a particular state is either clearly *unfinished*, or is *ambiguous*.

An example of clearly unfinished DTMF input would be a caller having entered ‘1’ in a state where digit strings of various lengths can be collected, with the shortest input being a single digit. In this situation we give the caller *n* seconds to enter the remainder of a possible multi-

digit string, where  $n$  is specified by some *inter-digit timeout* parameter. After each non-final digit entered by the caller, a countdown will start with a duration indicated by this parameter. If the countdown runs out before the caller has entered the next necessary digit, the application will go into a rejection.

Once the caller has entered the number of digits required to make the input complete—which is 9 digits in the case of an SSN, or 10 digits in case of a US phone number including area code—the application could take that input immediately and parse it, without running the countdown again. However, because the caller may enter the ‘#’ sign to terminate the string, we will look at two variables to determine whether or not we indeed terminate the digit string based upon satisfaction of the number of digits alone:

- 1) *Fixed-length versus not-fixed-length digit strings.* If the expected digit-string is of a fixed length, then we can terminate the string as soon as we have reached the correct number of digits. If its length varies, then we cannot, unless we have reached the maximum allowable length.
- 2) *Next state being a collection state or not.* If the next state in the application is another collection state, and we are *not* using an *inter-digit timeout* after the last digit in a fixed-length or maximum-length string, then we run the risk that any ‘#’ terminator entered by the caller will *not* get detected until the application has moved on to that next collection state. We do not have this risk if the next state is *not listening for input*, for example a database hit, or a play-message with *barge-in* turned off. Only where necessary, we eliminate this risk by using the *inter-digit timeout* even after the last digit of fixed-length or maximum-length string.

In short: we will terminate finished fixed-length and maximum length digit-strings *immediately* when the next state is *not listening for input*, and when the next state *is a collection state*, then for the maximum duration of the *inter-digit timeout* we will wait for a possible ‘#’ terminator. When a ‘#’ terminator is detected, we also *immediately* terminate the string.

Unfinished DTMF input can be ambiguous. This is the case when the digit(s) entered so far can be interpreted as *complete input* for other options or other numeric input. While the input could be considered complete under one interpretation it is *incomplete* under another interpretation, e.g. someone entered a ‘0’ as the first digit of their Social Security Number, but ‘0’ is also used to request an Associate. In this situation too, we use the *inter-digit timeout* to wait for possible further input, unless we have reached the maximum length.

#### 4.6.4

#### Key-ahead

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In any case, when we know that DTMF input is complete for a given context, the application should respond immediately and not run a end-of-DTMF-input countdown. If we were to introduce such a delay after each complete DTMF input, then we would seriously hinder the ability of power-users to comfortably ‘key-ahead’ through menus.

The so-called ‘key-ahead’ feature automatically works because of the zero-length timeout upon unambiguous DTMF input. As soon as the caller hits one of the numbers on the keypad to choose a menu option, the application takes that digit and moves to the next state accordingly. If that response to the DTMF input takes a fraction of a second and the next state is a collection state again, then this next state will automatically take the next digit if it is a voice menu, or the next sequence of digits if it is expecting a digit string. If the next state was a database hit instead, for example, then no input will be accepted during the database hit (because the app is not listening for anything), and once the application returns to a

collection state, further input is listened for from then on. This means that if that database hit happened to have sub-zero response time, the user could have run right over it using 'key-ahead' and never noticed anything. No key-ahead is possible over database hits that need more time, or over play-states that have barge-in turned off. Naturally, over states expecting variable-length digit-string input, 'key-ahead' can only be achieved by using the '#' terminator.

## 4.7 Digit-String Playback

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Variable digit-strings to be presented to the caller will be passed through a global routine that builds prompt lists to fluently play back any kind of digit string: phone numbers, SSNs, credit card numbers, etc. Valid input to this function is a string of digits, where a hyphens and spaces can be used to indicate grouping. Examples of valid input are: "123456", "1-617-428-4444", "017-85-3229", "4356 8900 0220 0392". For each hyphen or space, the routine will insert a pause. The prompt set to be used for this consists of the following 1,231 prompts:

- 1,000 prompts: "...0 0 0, ..." through "...9 9 9, ..." (Non-final intonation)
- 100 prompts: "...0 0, ..." through "...9 9, ..." (Non-final intonation)
- 100 prompts: "...0 0." through "...9 9." (Final intonation)
- 10 prompts: "0..." through "9..." (Rising intonation)
- 10 prompts: "...0, ..." through "...9, ..." (Non-final intonation)
- 10 prompts: "...0." through "...9." (Final intonation)
- 1 prompt: 1/4 second silence.

See <http://looknohands.com/digit-string-cpr/> for a demonstration of how the ployout of various different kinds of strings is constructed using prompts from the sets listed above.

## 4.8 Event Logging

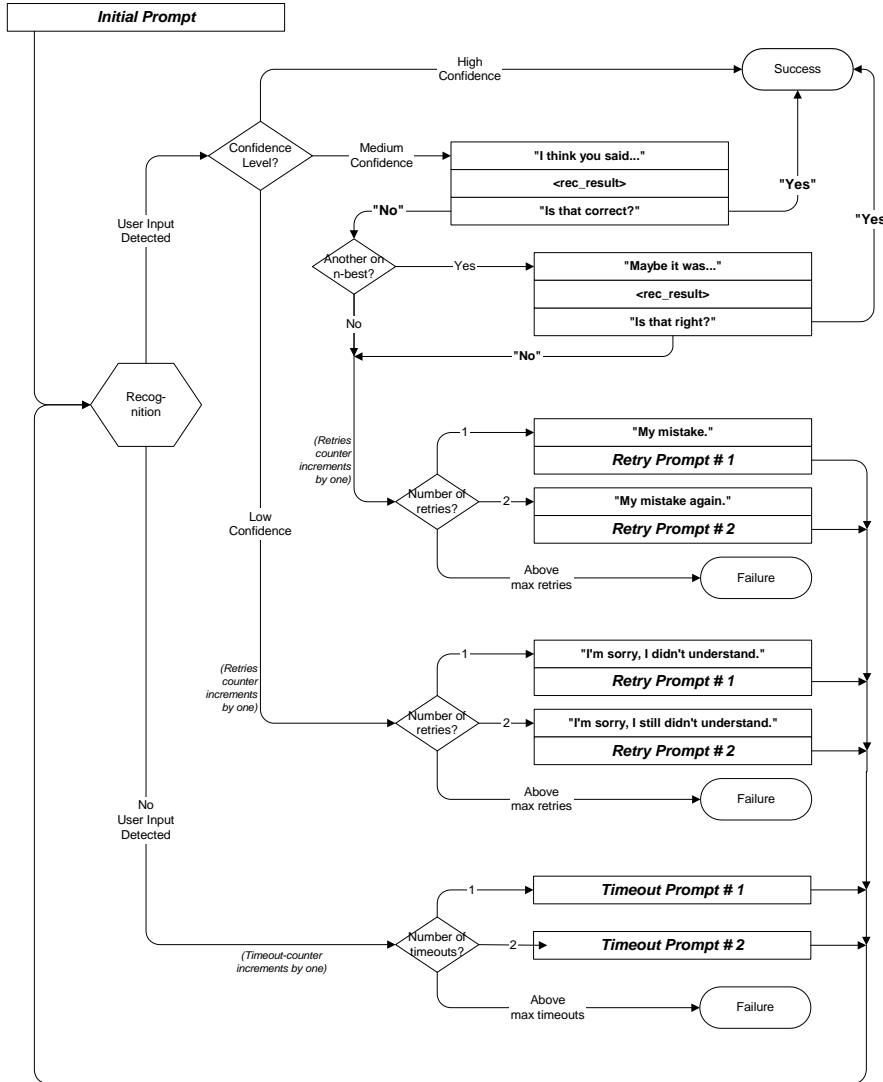
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Throughout all the User Interface Specifications, each state calls out the event logging that is unique to that state. For an overview of all of Event Logging, including global behavior for events such as what to do if an info token is not available, see the Event Logging section in the Functional Requirements Specification document.

## 4.9 Internal DialogModule Functionality

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This diagram shows the typical flow within a Dialog Module, including retry and timeout cases.



# Chapter 5: Detailed Dialog Specification

## 5.1 How to Read the Call-Flow Tables

**2100\_Finance\_Forex\_Menu**

Speech Input: Previous step of the dialog (2000\_Finance\_Menu), Initial prompt: first prompt played when entering the module.

Item List: Dialog-Module type

Prompts section:

Message Number	Type	Name	Wording
21001	Initial	21001	For which currency would you like to hear the exchange rate for?
21002	Timeout 1	21002	I'm sorry, I didn't hear you. Please say the currency you want to hear the exchange rate for, for example "Sterling Pound".
21003	Timeout 2	21003	I'm sorry, I still didn't hear you. Please say the currency you want to hear the exchange rate for, such as the "Japanese yen", or, to hear a full list to choose from, say "List all currencies".
21004	Retry 1	21004	Please say the currency you want an exchange rate for, for example "Australian dollar".
21005	Retry 2	21005	Please say the currency you want to hear the exchange rate for, such as the "Japanese yen", or, to hear a full list to choose from, say "List all currencies".
21006	Help	21006	You are in the foreign exchange menu. If you specify a currency, such as the "Danish krone", I'll give you the exchange rate for it against the US Dollar.

Voicing section:

DTMF	Action
<currency>	Go to: "2110_Finance_Forex_ExchangeRateIntroMsg"
"List all currencies", "List currencies", "List all", "List them all", "List them"	Go to: "2190_Finance_Forex_CurrenciesListIntro"

Commands section:

DTMF	Action
"Back up"	Go to: "2000_Finance_Menu"
"Main menu"	Go to: "1000_MainMenu"
"Goodbye"	Go to: "9000_Goodbye_Msg"
"Instructions"	Play prompt, help prompt and then re-enter module, playing prompt, awaiting new user input.
"Operator"	Go to: "8000_Transfer_Msg"

Developer notes:

- Default


Annotations:

- Touch-tone equivalents for user input
- Touch-tone equivalents for global commands
- System actions following on global commands
- System actions following on user input
- Timeout 1 prompt: played when no response to initial.
- Timeout 2 prompt: played when no response to first timeout.
- Retry 1 prompt: played when no recognition result from first input.
- Retry 2 prompt: played when no recognition result from input after first retry.
- Help prompt: typically played when caller asks for help or instructions.


## 5.2 Call-Flow Tables

**General note on prompt specification:** Where there are two or more Initial prompts, all are played in sequence on entry to the DM. Likewise with multiple Help prompts – all are played in sequence when the caller says Question or presses star. In contrast, Retry1 and Retry2 are played individually on the first or second retry respectively, and similarly for Timeout1 and Timeout2. The Initial and Help prompts are broken into pieces to reduce problems with recording long prompts accurately, and also to avoid the voice talent gasping for breath. Note that if a caller says Question (or any synonym) repeatedly in the same DM, they hear the same sequence of help prompts each time. There is presently no upper limit on how many times a caller can say Question in a DM. There is, however, a limit on the total length of the call, as specified in section 4.2 above.

### 1000-BeginApplication-Check

Branch on Condition	
This is the entry point for the Change of Address (COA) and Direct Deposit (DD) application.	
	
<b>Entering from</b>	
1036-SystemAvailability-Check	
Req ID	Action
1000-BeginApplication-Condition-Menu2	If COA from Main Menu Go to: 1020-WelcomeCOA-Msg
1000-BeginApplication-Condition-Menu3	Else IF DD from Main Menu Go to: 1010-WelcomeDD-Msg
1000-BeginApplication-Condition-Menu4COA	Else IF COA from Password Services Go to: 1020-WelcomeCOA-Msg
1000-BeginApplication-Condition-Menu4DD	Else IF DD from Password Services Go to: 1010-WelcomeDD-Msg
1000-BeginApplication-Condition-SFCOA	Else IF COA from SF Main Menu Go to: 1022-SFWelcomeCOA-Msg
1000-BeginApplication-Condition-SFDD	Else DD from SF Main Menu Go to: 1012-SFWelcomeDD-Msg
<b>Event logging</b>	


### 1010-WelcomeDD-Msg

Play Prompt	
Welcome the caller to the Direct Deposit application.	
	
<b>Entering from</b>	
1000-BeginApplication-Check	
Prompts	Wording
Message Number	Type Name
10105	1010-GLB-WelcomeDD-Prompt1 Hello! You've reached the automated Direct Deposit service.
Req ID	Action
1010-GLB-WelcomeDD-Condition-Always	Always Go to: 1030-DoUqualify-Msg
<b>Event logging</b>	




<b>Developer notes</b>
No barge-in


### 1012-SFWelcomeDD-Msg

		<b>Play Prompt</b>	
Welcome the caller to the Direct Deposit application from SpeakFreely Main Menu. Since SF N8NN introduces the process, we don't need to welcome the caller here.			
<b>Entering from</b>			
1000-BeginApplication-Check			
<b>Prompts</b>			
<b>Message Number</b>	<b>Name</b>	<b>Wording</b>	
10121	1012-GLB-SFWelcomeDD-Prompt1	[0.5 sec silence]	
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>	
1012-GLB-SFWelcomeDD-Condition-Always	Always	Go to: 1030-DoUqualify-Msg	
<b>Event logging</b>			
<b>Developer notes</b>			
No barge-in			

### 1020-WelcomeCOA-Msg


		<b>Play Prompt</b>	
Welcome the caller to the Change of Address application.			
<b>Entering from</b>			
1000-BeginApplication-Check			
<b>Prompts</b>			
<b>Message Number</b>	<b>Name</b>	<b>Wording</b>	
10200	1020-GLB-WelcomeCOA-Prompt1	Hello! You've reached the automated Change of Address service.	
<b>Condition</b>		<b>Action</b>	
Always 1020-GLB-WelcomeCOA -Condition-Always		Go to: 1030-DoUqualify-Msg	
<b>Event logging</b>			
<b>Developer notes</b>			
No barge-in			

### 1022-SFWelcomeCOA-Msg

		<b>Play Prompt</b>	
Welcome the caller to the Change of Address application from SpeakFreely Main Menu. Since SF N8NN introduces the process, we don't need to welcome the caller here.			


<b>Entering from</b>		
1000-BeginApplication-Check		
<b>Prompts</b>		
<b>Message Number</b>	<b>Name</b>	<b>Wording</b>
10121	1020-GLB-SFWelcomeCOA-Prompt1	[0.5 sec silence]
<b>Condition</b>		<b>Action</b>
Always 1020-GLB-SFWelcomeCOA - Condition-Always		Go to: 1030-DoUqualify-Msg
<b>Event logging</b>		
<b>Developer notes</b>		
No barge-in		

### 1030-DoUqualify-Msg

		<b>Play Prompt</b>	
Introduce caller to automated application, say we need to see whether they qualify to use the application.			
<b>Entering from</b>			
1010-WelcomeDD-Msg, 1020-WelcomeCOA-Msg			
<b>Prompts</b>			
<b>Message Number</b>	<b>Name</b>	<b>Wording</b>	
10302	1030-GLB-DoUqualify-Prompt1	I'll be asking you several questions, and you can SPEAK your answers. Just be sure to speak clearly and loud enough for me to hear over the phone.	
10121	silence_500	[500 ms silence]	
10303	1030-GLB-DoUqualify-Prompt2	If you've gotten to the wrong place, or you change your mind about proceeding, you can say Main Menu at any time. And if you have a question about anything I ask you, you can say Question at any time. <1 sec pause> OK, let's get started.	
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>	
1030-GLB-DoUqualify-Condition-pwd	Came from Main 3 (pwd)?	Go to: 1035-PingPwd-DB	
1030-GLB-DoUqualify-Condition-nopwd	Else from Main 2	Go to: 1032-HavePwd-VM	
<b>Event logging</b>			
<b>Developer notes</b>			
No barge-in			

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### 1032-HavePwd-VM

		<b>Voice Menu DialogModule™</b>	
Ask caller if they plan to use a password now, so we can ping the correct service.			
<b>Entering from</b>			
1030-DoUqualify-Msg			

Prompts		
Message Number	Type / Name	Wording
10321	1032-GLB-COAhavewpd-Prompt-Initial	It's not required, but do you have a seven-digit password that you set up with the Social Security Administration? Yes or No. <4 sec pause> If you're not sure, say Question.
10322	1032-GLB-COAhavewpd-Prompt-Retry1	[Global Default] If you have a password, say Yes. Otherwise say No. If you're not sure, say Question.
10323	1032-GLB-COAhavewpd-Prompt-Retry2	[Global Default] If you have a password, press one. Otherwise press two.
10324	1032-GLB-COAhavewpd-Prompt-Timeout1	I'm sorry, I didn't hear anything. If you have a seven-digit password that you set up with the Social Security Administration, say Yes or press one. If you don't have one, say No or press two. If you're not sure, say Question or press the star key.
10325	1032-GLB-COAhavewpd-Prompt-Timeout2	I'm sorry, I still didn't hear anything. If you have a seven-digit password that you set up with the Social Security Administration, say Yes or press one. If you don't have one, say No or press two. If you're not sure, say Question or press the star key. [4 sec pause] If you need assistance, say Agent or press zero.
10326	1032-GLB-COAhavewpd-Prompt-Help	The password I'm referring to would have been chosen and registered by you online or over the phone. You would have received a password request code in the mail, which you would have used along with your social security number and other information to register a seven-digit password to access your personal benefit information. If you've forgotten the password, you can request a new one by using the same process you used before. If you have this seven-digit password and you plan to use it today, say Yes. Otherwise say No and I'll verify your identity another way.
10327	1032-GLB-COAhavewpd-Prompt-SuccessYes	Great. It'll save time.
10328	1032-GLB-COAhavewpd-Prompt-SuccessNO	That's OK.


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Option	Vocabulary	DTMF	Action	Confirm.
1032-GLB-COAhavewpd-Option-yes	yes and usual synonyms	1	play SuccessYes prompt Go to: 1035-PingPwd-DB	never

1032-GLB-COAhavpwd-Option-no	no and usual synonyms	2	play SuccessNo prompt Go to: 1034-PingKBA-DB	<i>never</i>
1032-GLB-COAhavpwd-Option-maybe	global Help grammar plus: maybe [I'm] not sure I don't know	*	same as Question – play the Help prompt and reenter this DM as usual for help	<i>never</i>
Note: remove global "agent" grammar for this DM.				
<b>Confirmation prompts</b>				
<b>Option / Name</b>		<b>Wording</b>		
no confirmations for Yes / No				
<b>DialogModule parameters</b>				
<b>Parameter</b>		<b>Value</b>		
1032-GLB-COAhavpwd-Parameter				
after_end_of_speech_timeout		1,000 ms		
before_begin_of_speech_timeout		7,000 ms		
allowing_barge_in		True		
<b>Event logging</b>				
<b>Developer notes</b>				
Use the standard Yes/No DM and its associated grammar (variations on yes and no). The global Help/Question grammar is overridden for this DM in order to catch additional utterances including "maybe".				

### 1034-PingKBA-DB


<b>Database Query</b>			
Ping KBA system upon entry to ensure the presence of the back end.			
<b>Entering from</b>			
1032-HavePwd-VM			
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>	
1034-GLB-PingKBA-Condition-Always	Always	Go to: 1036-SystemAvailability-Check	
<b>Event logging</b>			

### 1035-PingPwd-DB


<b>Database Query</b>			
Ping Password system upon entry to ensure the presence of the back end.			
<b>Entering from</b>			
1030-DoUqualify-Msg			
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>	
1035-GLB-PingPwd-Condition-Always	Always	Go to: 1036-SystemAvailability-Check	

<b>Event logging</b>


### 1036-SystemAvailability-Check

<b>Branch on Condition</b>		
Branch on availability of system.		
<b>Entering from</b>		
1035-PingPwd-DB, 1034-PingKBA-DB		
	<b>Condition</b>	<b>Action</b>
1036-GLB-SystemAvailability-Condition-Unavailable	<i>IF System is unavailable</i>	NeedAssistanceWith = SysUnavailable Go to: 2100-AfterHours-Check
1036-GLB-SystemAvailability-Condition-Available	<i>Else</i>	NeedAssistanceWith := UserRequestedAgent (this is an initial setting that may be overridden by later events) Go to: 1038-IntroQual-Msg
<b>Event logging</b>		

### 1038-IntroQual-Msg

<b>Play Prompt</b>		
Introduce the series of qualifying question we're about to ask.		
<b>Entering from</b>		
1032-HavePwd-VM		
<b>Prompts</b>		
<b>Message Number</b>	<b>Name</b>	<b>Wording</b>
10381	1038-GLB-IntroQual-Prompt1	First I have to ask a few questions to see whether this automated service can help you.
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>
1038-GLB-IntroQual-Condition-Always	Always	Go to: 1050 1050-GetSSI-YN
<b>Event logging</b>		
<b>Developer notes</b>		
No barge-in		

### 1040-GetBeneNow-YN

<b>Custom Context DialogModule™</b>		
Ask whether caller is currently receiving benefits. This question now occurs AFTER the question about SSI (1050).		
<b>Entering from</b>		
1050 1050-GetSSI-YN		


<b>Prompts</b>				
<b>Message Number</b>	<b>Type</b>	<b>Name</b>	<b>Wording</b>	
10401	Initial	1040-GLB-GetBeneNow-Prompt-Initial	Are you currently receiving Social Security retirement, survivor, or disability benefits? Yes or no.	
10402	first retry	1040-GLB-GetBeneNow-Prompt-Retry1	[Global Default] If you're currently receiving Social Security retirement, survivor, or disability benefits, please say Yes. Otherwise say No.	
10403	second retry	1040-GLB-GetBeneNow-Prompt-Retry2	[Global Default] If you currently get a benefit check or deposit from Social Security, <del>press one. Otherwise, press two.</del>	
10404	first timeout	1040-GLB-GetBeneNow-Prompt-Timeout1	I'm sorry, I didn't hear anything. If you currently get a benefit check or deposit from Social Security, say Yes or press one. Otherwise, say No or press two. If you're not sure, say Question or press the star key.	
10405	second timeout	1040-GLB-GetBeneNow-Prompt-Timeout2	I'm sorry, I still didn't hear anything. If you currently get a benefit check or deposit from Social Security, say Yes or press one. Otherwise, say No or press two. If you're not sure, say Question or press the star key. [pause 4 sec] If you need assistance, say Agent or press zero.	
10406	Help – play all of these	1040-GLB-GetBeneNow-Prompt-Help1	[slowly] OK, I'll try to help with more explanation. You can use this automated service to change your address or phone number with Social Security only if you meet certain conditions. One of those conditions is that you must already be receiving a Social Security benefit due to retirement, disability, or being a survivor of someone who would have received a benefit.	
00500		silence_500	[500 ms silence]	
10407		1040-GLB-GetBeneNow-Prompt-Help2	[slowly] If you're not currently receiving a monthly check or deposit from Social Security, you can't use this AUTOMATED service to change your address or phone number. In most cases, though, just putting your new address and phone number on your income tax return is all that we need. If you'd like more information or need personal assistance, you can say Agent or press zero.	
00500		silence_500	[500 ms silence]	
10408		1040-GLB-GetBeneNow-Prompt-Help3	So please let me ask you again: Are you currently receiving Social Security retirement, survivor, or disability benefits? Yes or no.	
<b>Option</b>	<b>Vocabulary</b>	<b>DTMF</b>	<b>Action</b>	<b>Confirm.</b>
1040-GLB-GetBeneNow-Option-yes	yes and usual synonyms	1	Go to: 1060-LiveInUS-YN	never
1040-GLB-GetBeneNow-Option-no	no and usual synonyms	2	Go to: 1130_CantDoThat_DM	never

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**Deleted:** say Yes or press one. Otherwise, say No or press two. If you're not sure, say Question or press the star key.

1040-GLB-GetBeneNow-Option-specific	retirement [benefits] survivor [benefits] disability [benefits]	—	Go to: 1060-LiveInUS-YN	never
1040-GLB-GetBeneNow-Option-SSI	S S I [benefits]	—	Go to: 1120-CantUse-Msg	never
<b>Confirmation prompts</b>				
<b>Option / Name</b>		<b>Wording</b>		
no confirmations for Yes / No				
<b>DialogModule parameters</b>				
<b>Parameter</b>		<b>Value</b>		
1040-GLB-GetBeneNow-Parameter				
after_end_of_speech_timeout		1,000 ms		
before_begin_of_speech_timeout		7,000 ms		
allowing_barge_in		True		
<b>Event logging</b>				
<b>Developer notes</b>				
Play all three help prompts if the caller says Question. Note that 'retirement' etc. are accepted as equivalent to 'yes'.				

### 1050-GetSSI-YN


Yes/No DialogModule™ 			
Is caller receiving SSI? Correct answer is no!			
<b>Entering from</b>			
1038 1038-IntroQual-Msg			
<b>Prompts</b>			
<b>Message Number</b>	<b>Type</b>	<b>Name</b>	<b>Wording</b>
10501	Initial	1050-GLB-GetSSI-Prompt-Initial	Are you receiving S S I, also known as Supplemental Security Income payments?
10502	first retry	1050-GLB-GetSSI-Prompt-Retry1	[Global Default] If you're receiving S S I payments, say Yes. Otherwise say No.
10503	second retry	1050-GLB-GetSSI-Prompt-Retry2	[Global Default] If you're receiving S S I payments <del>say Yes. Otherwise press 1.</del>
10504	first timeout	1050-GLB-GetSSI-Prompt-Timeout1	I'm sorry, I didn't hear anything. If you're receiving S S I payments, say Yes or press 1. Otherwise say No or press 2. If you're not sure, say Question or press the star key.
10505	second timeout	1050-GLB-GetSSI-Prompt-Timeout2	I'm sorry, I still didn't hear anything. If you're receiving S S I payments, say Yes or press 1. Otherwise say No or press 2. If you're not sure, say Question or press the star key. [pause 4 sec] If you need assistance, say Agent or press zero.
10506	Help – play all of these	1050-GLB-GetSSI-Prompt-Help1	[slowly] OK, I'll try to help with more explanation. You can use this automated service to change your address or phone number with Social Security only if you meet certain conditions. One of those conditions is that you must NOT be receiving SSI, also known as supplemental security income payments.

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Deleted: , say Yes or press 1. Otherwise say No or press 2. If you're not sure, say Question or press the star key.

00500		silence_500	[500 ms silence]	
10507		1050-GLB-GetSSI-Prompt-Help2	[slowly] If you're receiving supplemental security income payments, you cannot use this automated system to change your address or phone number. If this is the case for you, please say Agent or press zero.	
00500		silence_500	[500 ms silence]	
10508		1050-GLB-GetSSI-Prompt-Help3	So please let me ask you again: Are you receiving S S I, also known as supplemental security income payments? Yes or no.	
<b>Option</b>	<b>Vocabulary</b>	<b>DTMF</b>	<b>Action</b>	<b>Confirm.</b>
1050-GLB-GetSSI-Option-yes	yes [yes] I receive SSI [yes] I get S S I S S I	1	Go to: 1120-CantUse-Msg	Never
1050-GLB-GetSSI-Option-no	no	2	Go to: 1040 1040-GetBeneNow-YN	Never
<b>Confirmation prompts</b>				
<b>Option / Name</b>		<b>Wording</b>		
no confirmations for Yes / No				
<b>DialogModule parameters</b>				
<b>Parameter</b>		<b>Value</b>		
1050-GLB-GetSSI-Parameter				
after_end_of_speech_timeout		1,000 ms		
before_begin_of_speech_timeout		7,000 ms		
allowing_barge_in		True		
low confidence threshold		.400		
<b>Event logging</b>				
<b>Developer notes</b>				
Use the standard Yes/No DM and its associated grammar (variations on yes and no). Play all three help prompts if caller says Question.				
Avoid double parsing – remove duplicate grammars or duplicate vocabulary.				

### 1060-LiveInUS-YN

<b>Yes/No DialogModule™</b>			
Ask if caller lives in U.S.			
<b>Entering from</b>			
<a href="#">1040-GetBeneNow-YN</a>			
<b>Prompts</b>			
<b>Message Number</b>	<b>Type</b>	<b>Name</b>	<b>Wording</b>
10601	first timeout second timeout Help – play all of these	1060-GLB-LiveInUS-Prompt-Initial	Are you currently residing in a state or territory of the United States? Yes or no.



10602		first retry	1060-GLB-LiveInUS-Prompt-Retry1	[Global Default] If you're currently living in a state or territory of the United States, say Yes. If you're living somewhere else, say No.	
10603		second retry	1060-GLB-LiveInUS-Prompt-Retry2	[Global Default] If you're currently living in a state or territory of the United States, <b>press one</b> otherwise, <b>press two</b> .	
10604		first timeout	1060-GLB-LiveInUS-Prompt-Timeout1	I'm sorry, I didn't hear anything. If you're currently living in a state or territory of the United States, say Yes or press one. If you're living somewhere else, say No or press two. If you're not sure, say Question or press the star key.	
10605		second timeout	1060-GLB-LiveInUS-Prompt-Timeout2	I'm sorry, I still didn't hear anything. If you're currently living in a state or territory of the United States, say Yes or press one. If you're living somewhere else, say No or press two. If you're not sure, say Question or press the star key. [pause 4 sec] If you need assistance, say Agent or press zero.	
10606	Help – play all of these		1060-GLB-LiveInUS-Prompt-Help1	[slowly] OK, I'll try to help with more explanation. You can use this automated service to change your address or phone number with Social Security only if you meet certain conditions. One of those conditions is that you must currently be living in a state or territory of the United States.	
00500			silence_500	[500 ms silence]	
10607			1060-GLB-LiveInUS-Prompt-Help2	[slowly] I only need a Yes or No answer at this point. You don't need to tell me which state or territory you live in - I'll ask you about that later if we change your address. If you do live in one of the states or territories of the United States, just say Yes or press one. If you live somewhere else, please say No or press two. [2 sec pause] If you still aren't sure and want to hear a list of the territories, just hang on and I'll list them for you. [4 sec pause] The current and former territories of the United States are:	
00500			silence_500	[500 ms silence]	
10608			1060-GLB-LiveInUS-Prompt-Help3	American Samoa, Federated States Of Micronesia, Guam , Marshall Islands, Northern Mariana Islands, Palau, Puerto Rico, and Virgin Islands.	
10609			silence_1000	[1 sec silence]	
10609			1060-GLB-LiveInUS-Prompt-Help4	So please let me ask again: Are you currently residing in a state or territory of the United States? Yes or no.	
10610	Success Yes		1060-GLB-LiveInUS-Prompt-SuccessYes	Alright, ...	
Option		Vocabulary	DTMF	Action	Confirm.
1060-GLB-LiveInUS-Option-yes		yes	1	play SuccessYes prompt Go to: 1070-OwnBene-VM	If necessary
1060-GLB-LiveInUS-Option-no		no	2	[no success prompt for No] If Direct Deposit go to: <a href="#">1065 MI 53 Host Transaction</a> else go to: 1120-CantUse-Msg	If necessary

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**Deleted:** say Yes or press one. If you're living somewhere else, say No or press two. If you're not sure, say Question or press the star key.

Confirmation prompts	
Option / Name	Wording
no confirmations for Yes / No	
DialogModule parameters	
Parameter	Value
1060-GLB-LiveInUS-Parameter	
after_end_of_speech_timeout	1,000 ms
before_begin_of_speech_timeout	7,000 ms
allowing_barge_in	True
Event logging	
Developer notes	
Use the standard Yes/No DM and its associated grammar (variations on yes and no). Play all help prompts if caller says Question.	

### 1065\_MI 53 Host Transaction

Database Query	
Message to host for MI = 53 is to be used if caller enters this state.	
Entering from	
<a href="#">1060-LiveInUS-YN</a>	
Condition	Action
	Go to: 1120-CantUse-Msg
Event logging	

### 1070-OwnBene-VM


Yes/No DialogModule™		
Ask caller to confirm they're changing their own account.		
Entering from		
1060-LiveInUS-YN		
Prompts		
Message Number	Type / Name	Wording
10701	1070-GLB-OwnBene-Prompt-Initial	Is the change you're calling about for your OWN benefit or payment? Yes or no.
10702	1070-GLB-OwnBene-Prompt-Retry1	[Global Default] If you're calling about your own benefit or payment, say Yes. If you're calling about someone else's benefit, say No.
10703	1070-GLB-OwnBene-Prompt-Retry2	[Global Default] If you're calling about your own benefit or payment, <b>press one</b> or <b>press two</b> .
10704	1070-GLB-OwnBene-Prompt-Timeout1	I'm sorry, I didn't hear anything. If you're calling about your own benefit or payment, say Yes or press one. If you're calling about someone else's benefit, say No or press two. If you're not sure, say Question or press the star key.

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**Deleted:** say Yes or press one. If you're calling about someone else's benefit, say No or press two. If you're not sure, say Question or press the star key.

10705		1070-GLB-OwnBene-Prompt-Timeout2	I'm sorry, I still didn't hear anything. If you're calling about your own benefit or payment, say Yes or press one. If you're calling about someone else's benefit, say No or press two. If you're not sure, say Question or press the star key. [pause 4 sec] If you need assistance, say Agent or press zero.		
10706	Help — play all of these	1070-GLB-OwnBene-Prompt-Help1	[slowly] OK, I'll try to help with more explanation. You can use this automated service to change your address or phone number with Social Security only if you meet certain conditions. One of those conditions is that can make changes only for your own account. You cannot make changes for someone else's account even if they asked you to do it. Social Security privacy regulations don't allow us to do that with this automated system.		
00500		silence_500	[500 ms silence]		
10707		1070-GLB-OwnBene-Prompt-Help2	[slowly] If you ARE calling on behalf of someone else, you should say Agent or press zero for assistance. [2 sec pause] So please let me ask again: Is the change you're calling about for your OWN benefit or payment? Please say Yes or No.		
<b>Option</b>		<b>Vocabulary</b>	<small>DTMF</small>	<b>Action</b>	<b>Confirm.</b>
1070-GLB-OwnBene-Option-yes		yes	1	Go to: 1080-COAorDD-Check	<i>If necessary</i>
1070-GLB-OwnBene-Option-no		no	2	Go to: 1120-CantUse-Msg	<i>If necessary</i>
<b>Confirmation prompts</b>					
<b>Option / Name</b>		<b>Wording</b>			
no confirmations for Yes / No					
<b>DialogModule parameters</b>					
<b>Parameter</b>		<b>Value</b>			
1070-GLB-OwnBene-Parameter					
after_end_of_speech_timeout		1,000 ms			
before_begin_of_speech_timeout		7,000 ms			
allowing_barge_in		True			
<b>Event logging</b>					
<b>Developer notes</b>					
Use the standard Yes/No DM and its associated grammar (variations on yes and no).					

### 1080-COAorDD-Check

		<b>Branch on Condition</b>		
Up to here, other than the initial greeting, everything was the same for both COA and DD. Now we split and do different things.				
<b>Entering from</b>				
1070-OwnBene-VM				
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>		
1080-GLB-COAorDD-Condition-COA	<i>If doing COA</i>	Go to: 1090-KnowZip-VM		
1080-GLB-COAorDD-Condition-DD	<i>Else doing DD</i>	Go to: 1100-KnowBank-VM		
<b>Event logging</b>				

### 1090-KnowZip-VM

		Yes/No DialogModule™			
Ask caller if they have their new zip code and / or new phone number handy.					
<b>Entering from</b>					
1080-COAorDD-Check					
<b>Prompts</b>					
Message Number		Type / Name	Wording		
10901		1090-GLB-KnowZip-Prompt-Initial	To change your address, you'll need to know your new five-digit zip code. To change your phone number, you'll need to know your new ten-digit phone number including area code. Do you have the numbers you'll need with you now? Yes or no.		
10902		1090-GLB-KnowZip-Prompt-Retry1	[Global Default] If you have your new zip code or new phone number with you right now, say Yes. If you don't have them, say No.		
10903		1090-GLB-KnowZip-Prompt-Retry2	[Global Default] If you have your new zip code or new phone number with you right now, <b>press one - Otherwise, press two.</b>		
10904		1090-GLB-KnowZip-Prompt-Timeout1	I'm sorry, I didn't hear anything. If you have your new zip code or new phone number with you right now, say Yes or press one. If you don't have them, say No or press two. If you're not sure, say Question or press the star key.		
10905		1090-GLB-KnowZip-Prompt-Timeout2	I'm sorry, I still didn't hear anything. If you have your new zip code or new phone number with you right now, say Yes or press one. If you don't have them, say No or press two. If you're not sure, say Question or press the star key.		
10906	Help – play all of these	1090-GLB-KnowZip-Prompt-Help1	[slowly] OK, I'll try to help with more explanation. To change your address with this automated system, I need to know your new zip code. To change your phone number, you'll need to tell me the new one with area code. If you don't have these numbers available, you can always call back later when you do have them.		
20000		silence_2000	[2 sec silence]		
10907		1090-GLB-KnowZip-Prompt-Help2	So please let me ask you again: Do you have your new zip code or new phone number with you? Yes or no.		
Option		Vocabulary	DTMF	Action	Confirm.
1090-GLB-KnowZip-Option-yes		yes	1	Go to: 1300-PWDorKB-Check	If necessary
1090-GLB-KnowZip-Option-no		no	2	Go to: 1110-CantProceed-VM	If necessary
Note: remove agent synonyms from global grammar for this DM.					
<b>Confirmation prompts</b>					
Option / Name	Wording				
no confirmations for Yes / No					
<b>DialogModule parameters</b>					
Parameter	Value				
1090-GLB-KnowZip-Parameter					
after_end_of_speech_timeout	1,000 ms				
before_begin_of_speech_timeout	15,000 ms ← Note increased value				
allowing_barge_in	True				


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Deleted: say Yes or press one. If you don't have them, say No or press two. If you're not sure, say Question or press the star key.

<b>Event logging</b>
<b>Developer notes</b>
Use the standard Yes/No DM and its associated grammar (variations on yes and no).

## 1100-KnowBank-VM

<b>VoiceMenu DialogModule™</b>			
Tell caller they'll need bank routing and account numbers and ask if they have them.			
<b>Entering from</b>			
1080-COAorDD-Check			
<b>Prompts</b>			
Message Number	Type / Name		Wording
11040	Initial – play all of these	1100-GLB-KnowBank-Prompt-Initial1	To set up or change direct deposit of your benefits, you'll need to know two numbers that you can get from your personal check, or from your financial institution. The first is the bank routing number. [1 sec pause] The second is your personal account number.
<del>1000</del>		<del>silence_1000</del>	<del>[ 1 sec silence ]</del>
11041		1100-GLB-KnowBank-Prompt-Initial2	If you have those numbers now, say I'm Ready. If you're not sure, say More Information. If you need a moment to find the numbers, say Wait A Minute. If you DON'T have the numbers, say I Don't Have Them.
11042	first retry	1100-GLB-KnowBank-Prompt-Retry1	[Global Default] If you DO have the bank numbers, say "I'm Ready", or press one. If not, say "I Don't Have Them", or press two. If you need a moment to find them, say "Wait A Minute", or press three. If you're not sure whether you have the numbers, say "More Information", or press the star key. If you no longer want to set up or change direct deposit, say "Main Menu" or press 9.
11043	second retry	1100-GLB-KnowBank-Prompt-Retry2	[Global Default] If you DO have the bank numbers, say "I'm Ready", or press one. If not, say "I Don't Have Them", or press two. If you need a moment to find them, say "Wait A Minute", or press three. If you're not sure whether you have the numbers, say "More Information", or press the star key. If you no longer want to set up or change direct deposit, say "Main Menu" or press 9.
11044	first timeout	1100-GLB-KnowBank-Prompt-Timeout1	I'm sorry, I didn't hear anything. If you DO have the bank numbers, say I'm Ready, or press one. If not, say I Don't Have Them, or press two. If you need a moment to find them, say Wait A Minute, or press three. If you're not sure whether you have the numbers, say More Information, or press the star key. Or, if you'd like to do something else, say Main Menu or press 9.
11045	second timeout	1100-GLB-KnowBank-Prompt-Timeout2	I'm sorry, I still didn't hear anything. If you DO have the bank numbers, say I'm Ready, or press one. If not, say I Don't Have Them, or press two. If you need a moment to find them, say Wait A Minute, or press three. If you're not sure whether you have the numbers, say More Information, or press the star key. If you no longer want to set up or change direct deposit, say Main Menu or press 9. [4 sec pause] If you need assistance, say Agent or press zero.
	third timeout	1100-GLB-KnowBank-Prompt-Timeout3	<same as Timeout2>

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11046	Help – play all of these	1100-GLB-KnowBank-Prompt-Help1	Sure, here's a bit more information about those numbers. The bank routing number is exactly nine digits and is printed on the bottom of each check in between two marks that look like a vertical bar followed by a colon. It's usually the left-most number at the bottom of the check.
00500		silence_500	[500 ms silence]
11047		1100-GLB-KnowBank-Prompt-Help2	Your account number is some number of digits ending with a symbol that looks like two vertical bars followed by a square dot. Don't confuse your ACCOUNT number with your CHECK number that is both at the bottom and at the top right of your check.
00500		silence_500	[500 ms silence]
11048		1100-GLB-KnowBank-Prompt-Help3	If you don't have these numbers, you'll need to get them from your financial institution before we can set up or change direct deposit. If you DO have the numbers now, say I'm Ready. If you need a moment to find the numbers, say Wait A Minute. If you DON'T have the numbers, say I Don't Have Them.
<del>20000</del>		silence_2000	[2 sec silence]
11049		1100-GLB-KnowBank-Prompt-Help4	If you want to call again later, just hang up. If you no longer want to set up or change direct deposit, say Main Menu. To hear this information again, say More Information.

Deleted: 00500

Option	Vocabulary	DTMF	Action	Confirm.
1100-GLB-KnowBank-Option-Have	[I'm] ready yes I have it	1	Go to: 1300-PWDorKB-Check	If necessary
1100-GLB-KnowBank-Option-DontHave	[I] don't have [them   the numbers]	2	Go to: 1110-CantProceed-VM	Always
1100-GLB-KnowBank-Option-WaitAMinute	wait a minute	3	Go to: 1105	Never


Confirmation prompts		
Message Number	Option / Name	Wording
11050	1100-GLB-KnowBank-ConfPrompt-HaveThem	[I think you said] that you have the numbers. [Is that correct?]
11051	1100-GLB-KnowBank-ConfPrompt-DontHave	[I think you said] that you DON'T have the numbers so you'll need to call back later. [Is that correct?]

DialogModule parameters	
Parameter	Value
1100-GLB-KnowBank-Parameter	
after_end_of_speech_timeout	1,000 ms
before_begin_of_speech_timeout	20,000 ms ← Note increased value
allowing_barge_in	True
collection_maxnoinputs	3

Event logging


<p><b>Developer notes</b></p> <p>Note the extra long timeout value in case caller needs to fumble around to find the numbers. Also the number of timeouts allowed is increased. And if that isn't enough, there's also a Wait A Minute feature.</p> <p>set SWL_scoreDelta to +200 to increase bias towards utterance, -200 to decrease (down-weight) bias towards utterance in grammar e.g. &lt;item&gt;&lt;tag&gt;AGENT='agent'; SWL_scoreDelta=-200&lt;/tag&gt;agent&lt;/item&gt;</p> <p>Add one-step correction to confirmation grammar for this DM "no, I have (them   the numbers)" Route the same as "I'm ready".</p>
---

## 1105-SayReady-VM

<b>VoiceMenu DialogModule™</b>					
Caller asked to wait.					
<b>Entering from</b>					
1100-KnowBank-VM					
<b>Prompts</b>					
<b>Message Number</b>	<b>Type / Name</b>	<b>Wording</b>			
11052	1105-DD-SayReady-Prompt-Initial	OK, I'll wait a bit. When you're ready, say I'm Ready or press one on your keypad.			
11053	1105-DD-SayReady-Prompt-Retry1	<a href="#">[Global Default]</a> Are you ready now?			
11054	1105-DD-SayReady-Prompt-Retry2	<a href="#">[Global Default]</a> If you're ready now, say I'm Ready or press one, otherwise say Wait A Minute or press two. [4 sec pause] If you need assistance, say Agent or press zero.			
11055	1105-DD-SayReady-Prompt-Timeout1	When you're ready, say I'm Ready or press one on your keypad.			
11055	1105-DD-SayReady-Prompt-Timeout2 and 3 and 4	<same as Timeout 1>			
11056	1105-DD-SayReady-Prompt-Help	I'm waiting for you to find the bank numbers you'll need to set up direct deposit. When you have them, say I'm Ready. Otherwise say Wait A Minute. [1 sec pause] If you can't find the numbers, just hang up now and call back when you find them. [4 sec pause] If you need assistance, say Agent or press zero.			
<b>Option</b>	<b>Vocabulary</b>	<b>DTMF</b>	<b>Action</b>		<b>Confirm.</b>
1105-DD-SayReady-Option-Ready	[yes] I'm ready I have the numbers yes hello OK I got it	1	Go to: 1300-PWDorKB-Check		<i>If necessary</i>
1105-DD-SayReady-Option-NotReady	wait a minute no	2	re-enter this DM, replaying the Initial prompt		<i>If necessary</i>
1105-DD-SayReady-Option-Repeat	repeat repeat the question	3	Go to: 1100-KnowBank-VM		<i>If necessary</i>

Confirmation prompts		
Message Number	Option / Name	Wording
11057	1105-DD-SayReady-ConfPrompt-Ready	[I think you said] that you're ready with the bank numbers. [Is that correct?]
11058	1105-DD-SayReady-ConfPrompt-NotReady	[I think you said] that you need more time. [Is that correct?]
11059	1105-DD-SayReady-ConfPrompt-Repeat	[I think you said] you'd like to hear the question again. [Is that correct?]
DialogModule parameters		
Parameter	Value	
1105-DD-SayReady-Parameter		
after_end_of_speech_timeout	1,000 ms	
before_begin_of_speech_timeout	20,000 ms ← Note large value	
allowing_barge_in	True	
collection_maxnoinputs	4 ← Note increased value for number of timeouts	
barge-in sensitivity	<b>0.9</b>	
Event logging		
Developer notes		
Be sure sensitivity parameter is set as indicated.		

### 1110-CantProceed-VM


VoiceMenu DialogModule™ 				
The caller said they don't have the required numbers (zip or bank info), so tell them we can't proceed and offer the usual options. Note this is different from not being qualified to use the application. The caller is allowed to use the application, but just doesn't have the required numbers handy.				
Entering from				
1090-KnowZip-VM, 1100-KnowBank-VM				
Prompts	Message Number	Type	Name	Wording
	11101		1110-GLB-CantProceed-Prompt-Initial1	I'm afraid we can't proceed without those numbers. Please call back as soon as you have them and I'll be glad to help you with these changes.
	<del>1000</del>		<del>silence_1000</del>	<del>[1 sec silence]</del>
	11102		1110-GLB-CantProceed-Prompt-Initial2	If you'd like to do something else, you can say Main Menu. Otherwise just hang up.
	11103		1110-GLB-CantProceed-Prompt-Retry1	[Global Default] Please say Main Menu or press nine, or just hang up.
	11104		1110-GLB-CantProceed-Prompt-Retry2	[Global Default] Please say Main Menu or press nine, or just hang up.
	11105		1110-GLB-CantProceed-Prompt-Timeout1	I'm sorry, I didn't hear anything. Please say Main Menu or press nine, or just hang up.
	11105		1110-GLB-CantProceed-Prompt-Timeout2	I'm sorry, I didn't hear anything. Please say Main Menu or press nine, or just hang up.

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
11101		1110-GLB-CantProceed-Prompt-Help1	I'm afraid we can't proceed without those numbers. Please call back as soon as you have them and I'll be glad to help you with these changes.		
11102		1110-GLB-CantProceed-Prompt-Help2	If you'd like to do something else, you can say Main Menu. Otherwise just hang up.		
Option		Vocabulary	DTMF	Action	Confirm.
1110-GLB-CantProceed-Option-Ready		same grammar as 1105-DD-SayReady-Option-Ready	1	Go to: 1300-PWDorKB-Check	<i>If necessary</i>
1110-GLB-CantProceed-Option-Goodbye		thank you goodbye OK	—	hang up	<i>Never</i>
Note: Be sure that global grammars for "main menu" and "question" are active.					
Confirmation prompts					
Message Number	Option / Name	Wording			
11107	1110-GLB-CantProceed-ConfPrompt-Ready	[I think you said] that you're ready with the numbers. [Is that correct?]			
DialogModule parameters					
Parameter			Value		
1110-GLB-CantProceed-Parameter					
after_end_of_speech_timeout			1,000 ms		
before_begin_of_speech_timeout			7,000 ms		
allowing_barge_in			True		
Event logging					
Developer notes					

### 1120-CantUse-Msg

			<b>Play Prompt</b>	
The caller has given a disqualifying response to a screening question so they aren't allowed to use this application, but an agent may be able to help.				
Entering from				
1050-GetSSI-YN, 1060-LiveInUS-YN, 1070-OwnBene-VM. <a href="#">1065_MI 53 Host Transaction</a>				
Prompts				
Message Number	Name	Wording		
11200	1120-GLB-CantUse-Prompt-Initial1	Based on that information, you won't be able to use this automated system, but we'd still like to help if we can.		
Condition		Action		
1120-GLB-IntroQual-Condition-Always		NeedAssistanceWith := ValidationFailure Go to: 2100-AfterHours-Check		


<b>Event logging</b>
<b>Developer notes</b>
No barge-in

### 1130\_CantDoThat\_DM

CustomContext DialogModule™				
The caller has given a disqualifying response to a screening question, so they can't perform the function at all, even using an agent.				
<b>Entering from</b>				
1040-GetBeneNow-YN				
<b>Prompts</b>				
<b>Message Number</b>	<b>Type</b>	<b>Name</b>	<b>Wording</b>	
11301	Initial	1130-GLB-CantDoThat-Prompt-Initial1	Based on that information, you cannot perform this function even with the help of an agent. To perform this function, you must be RECEIVING benefit payments. For further details, and some tips on what you CAN do, say More Information. [ 2 sec pause] If there's something else you need to do with Social Security, or if you want to try again, you can say Main Menu. If you're done, just hang up.	
11302	Retry 1	1130-GLB-CantDoThat-Prompt-Retry1	[Global Default]. Please say Main Menu, or just hang up.	
11303	Timeout 1	1130-GLB-CantDoThat-Prompt-Timeout1	I'm sorry, I didn't hear anything. Please say Main Menu, or just hang up.	
<b>Option</b>				
<b>Vocabulary</b>	<b>DTMF</b>	<b>Action</b>	<b>Confirm.</b>	
disable all global grammars for this DM				
main menu	main menu menu	9	Go to 2212 2212-ThanksBeforeReturn-Msg	If necessary
more info	more information	*	Go to 1140 1140_HelpForCantDoThat_DM	Never
<b>Confirmation prompts</b>				
<b>Option</b>	<b>Name</b>	<b>Wording</b>		
main menu	gl_conf_mainmenu	[I think you said] you want to return to the Main Menu. [Is that correct?]		
<b>DialogModule parameters</b>				
<b>Parameter</b>	<b>Value</b>			
incompletetimeout	1,000 ms			
timeout	7,000 ms			
bargein	True			
maxnomatches	1			
maxnoinputs	1			
<b>Event logging</b>				

<b>Developer notes</b>
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### 1140\_HelpForCantDoThat\_DM

CustomContext DialogModule™				
<b>Entering from</b>				
1130 1130_CantDoThat_DM				
<b>Prompts</b>				
<b>Message Number</b>	<b>Type</b>	<b>Name</b>	<b>Wording</b>	
11402	Initial	1140-GLB-HelpForCantDoThat-Prompt-Initial1	I'll try to explain it more. The function you requested, either change of address or setup of direct deposit, can be performed only by people who are currently receiving Social Security retirement, disability, or survivor benefit payments. If you don't meet this requirement, our agents can't help you with these functions either, because Social Security doesn't maintain address information for you in our files. If you've APPLIED to receive benefits and need to change your address, say Agent now and the agent will refer you to the office that has your pending claim. If you are neither receiving benefits nor have applied for benefits, but still need to change the address to which we send Social Security statements, you'll have to do that through the Internal Revenue Service. The easiest way to do that is just enter your new address on your tax return, but if you need to do it sooner, you can use IRS form 8-8-2-2, which you can get by calling 1-800-829-3676. [2 sec pause] If there's something else you need to do with Social Security, you can say Main Menu. If you're done, just hang up. To hear this message again, say More Information.	
11403	Retry 1	1130-GLB-CantDoThat-Prompt-Retry1	<a href="#">[Global Default]</a> Please say Main Menu, or just hang up.	
11404	Timeout 1	1130-GLB-CantDoThat-Prompt-Timeout1	I'm sorry, I didn't hear anything. Please say Main Menu, or just hang up.	
<b>Option</b>	<b>Vocabulary</b>	<b>DTMF</b>	<b>Action</b>	<b>Confirm.</b>
<b>disable all global grammars for this DM</b>				
main menu	main menu menu	9	Go to 2212 2212-ThanksBeforeReturn-Msg	<i>If necessary</i>
more info	more information question	*	re-enter this DM	<i>never</i>
agent	agent synonyms	0	Go to 2100 2100-AfterHours-Check	<i>If necessary</i>
<b>Confirmation prompts</b>				
<b>Message Number</b>	<b>Option</b>	<b>Name</b>	<b>Wording</b>	
00117	main menu	gl_conf_mainmenu	[I think you said] you want to return to the Main Menu. [Is that correct?]	


00130	agent	gl_conf_operator	[I think you said] you want to talk to an agent. [Is that correct?]
<b>DialogModule parameters</b>			
<b>Parameter</b>		<b>Value</b>	
incompletetimeout		1,000 ms	
timeout		7,000 ms	
bargain		True	
maxnomatches		1	
maxnoinputs		1	
<b>Event logging</b>			
<b>Developer notes</b>			

Deleted: speak

### 1300-PWDorKB-Check

<b>Branch on Condition</b>			
The caller is qualified to use the application and wants to do a change of address or phone. See how we entered the application – directly from main or indirectly from password services – and branch accordingly.			
<b>Entering from</b>			
1090-KnowZip-VM			
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>	
1300-GLB-PWDorKB-Condition-PwdUnsure	IF Main Menu option 2 (COA) OR option 3 (DD)	Go to: 1310-UsingPwd-Check	
1300-GLB-PWDorKB-Condition-UsingPwd	Else IF Main Menu option 4 (Pwd svcs) plus COA OR plus DD	Go to: 1320-CallPwdAuth-Code	
---	Else impossible condition	---	
<b>Event logging</b>			

### 1310-UsingPwd-Check

<b>Branch on Condition</b>			
Check the answer to our earlier question about whether the caller plans to use a password.			
<b>Entering from</b>			
1300-PWDorKB-Check			
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>	
1310-GLB-UsingPwd-Condition-Pwd	IF using password	Go to: 1320-CallPwdAuth-Code	
1310-GLB-UsingPwd-Condition-KBA	Else using KBA	Go to: 1330-CallKBAAuth-Code	
<b>Event logging</b>			

### 1320-CallPwdAuth-Code

Entered from 1300-PWDorKB-Check, 1032-HavePwd-VM

**Call PwdAuth**

no parameters

expect return code of Success or Failure

**Go to:** 1340-authstatus-Check

Event Logging: <to be specified>

### 1330-CallKBAuth-Code

Entered from 1310-UsingPwd-Check

**Call KBAuth**


no parameters

expect return code of Success or Failure

**Go to:** 1340-authstatus-Check

Event Logging: <to be specified>

### 1340-authstatus-Check

Branch on Condition		
We called one of the authorization routines, either PwdAuth or KBAuth. See what they returned.		
<b>Entering from</b>		
1320-CallPwdAuth-Code, 1330-CallKBAuth-Code		
Req ID	Condition	Action
1340-GLB-authstatus-Condition-SuccCOA	<i>IF auth success AND doing COA</i>	Go to: 1350-CallCOA-Code
1340-GLB-authstatus-Condition-SuccDD	<i>else if auth success AND doing DD</i>	Go to: 1450-CallDD-Code
1340-GLB-authstatus-Condition-AcctBlockedCOA	<i>else auth failure because account blocked</i>	NeedAssistanceWith := ValidationFailure Go to: 2100-AfterHours-Check
1340-GLB-authstatus-Condition-Fail	<i>else auth failure for some other reasons</i>	NeedAssistanceWith := ValidationFailure Go to: 1500-CantAuth-Msg
<b>Event logging</b>		

### 1350-CallCOA-Code

Entered from 1340-authstatus-Check

**Call COA**


no parameters

expect return code of Success or Failure


**Go to:** 1360-checkstatus-Check

Event Logging: <to be specified>


### 1360-checkstatus-Check

<b>Branch on Condition</b>		
We called the COA or the DD routine. See what it returned.		
<b>Entering from</b>		
1350-CallCOA-Code, 1450-CallDD-Code		
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>
1360-GLB-checkstatus-Condition-Succ	<i>IF Success from COA or DD</i>	Go to: 1370-done-VM
1360-GLB-checkstatus-Condition-Fail	<i>Else DD Failure</i>	Go to: <a href="#">1365 MI 54</a>
1360-GLB-checkstatus-Condition-Fail	<i>Else COA Failure</i>	Go to: 1510-NowWhat-VM
<b>Event logging</b>		

### 1365 MI 54 Host Transaction

<b>Database Query</b>		
Message to host for MI = 54 is to be used if caller enters this state.		
<b>Entering from</b>		
<a href="#">1360-checkstatus-Check</a>		
<b>Condition</b>	<b>Action</b>	
	Go to: 1510-NowWhat-VM	
<b>Event logging</b>		

### 1370-done-VM

<b>VoiceMenu DialogModule™</b>		
Change completed successfully. Ask if callers wants anything else.		
<b>Entering from</b>		
1360-checkstatus-Check		
<b>Prompts</b>		
<b>Message Number</b>	<b>Type / Name</b>	<b>Wording</b>
13701	1370-GLB-done-Prompt-Initial	If you'd like to do something else, you can say Main Menu. Otherwise just hang up.
13702	1370-GLB-done-Prompt-Retry1	<a href="#">[Global Default]</a> Please say Main Menu or just hang up.
13703	1370-GLB-done-Prompt-Retry2	<a href="#">[Global Default]</a> Please say Main Menu or press nine, or just hang up.
13704	1370-GLB-done-Prompt-Timeout1	I'm sorry, I didn't hear anything. If you'd like to do something else, please say Main Menu or press nine. Otherwise you can just hang up.
13705	1370-GLB-done-Prompt-Timeout2	I'm sorry, I didn't hear anything. If you'd like to do something else, please say Main Menu or press nine. Otherwise you can just hang up.
13706	1370-GLB-done-Prompt-Help	We've collected all your information and sent it off for processing. Now if you'd like to do something else with this automated system, say Main Menu or press nine. Otherwise, if you're finished, you can just hang up.

Option	Vocabulary	DTMF	Action	Confirm.
1370-GLB-done-Option-Goodbye	goodbye thanks thank you OK	1	hang up	Never
<b>Confirmation prompts</b>				
<b>Option / Name</b>		<b>Wording</b>		
none				
<b>DialogModule parameters</b>				
<b>Parameter</b>			<b>Value</b>	
1370-GLB-done-Parameter				
after_end_of_speech_timeout			1,000 ms	
before_begin_of_speech_timeout			7,000 ms	
allowing_barge_in			True	
<b>Event logging</b>				
<b>Developer notes</b>				

### 1450-CallIDD-Code

Entered from 1340-authstatus-Check  
**Call DD**  
 no parameters  
 expect return code of Success or Failure  
**Go to:** 1360-checkstatus-Check  
 Event Logging: <to be specified>


### 1500-CantAuth-Msg

Play Prompt		
Caller failed authentication. Say so.		
<b>Entering from</b>		
1340-authstatus-Check		
<b>Prompts</b>		
Name	Name	Wording
15002	1500-GLB-CantAuth-Prompt-1	Since I couldn't validate your identity, we can't continue with the change you requested.
1000	silence_1000	[1_sec silence]
<b>Req ID</b>		<b>Action</b>
1500-GLB-CantAuth-Condition-Always		Go to: 1510-NowWhat-VM

- Deleted: 3
- Deleted: 0
- Deleted: 3
- Deleted: 3

<b>Event logging</b>
<b>Developer notes</b>
No barge-in ← Check this setting!

### 1510-NowWhat-VM


		VoiceMenu DialogModule™	
The caller failed in authentication.			
<b>Entering from</b>			
1500-CantAuth-Msg			
<b>Prompts</b>			
Message Number	Type / Name	Wording	
15101	1510-GLB-NowWhat-Prompt-Initial	If you'd like to do something else, say Main Menu. If you're done, say Goodbye or just hang up. [2 sec pause] If you need assistance, say Agent or press zero.	
15102	1510-GLB-NowWhat-Prompt-Retry1	<a href="#">[Global Default]</a> Please say Agent or press zero, or say Main Menu or press nine, or just hang up.	
15103	1510-GLB-NowWhat-Prompt-Retry2	<a href="#">[Global Default]</a> Please say Agent or press zero, or say Main Menu or press nine, or just hang up.	
15104	1510-GLB-NowWhat-Prompt-Timeout1	I'm sorry, I didn't hear anything. There's nothing more I can help you with in this part of the system. Please say Agent or press zero, or say Main Menu or press nine, or just hang up.	
15015	1510-GLB-NowWhat-Prompt-Timeout2	I'm sorry, I didn't hear anything. There's nothing more I can help you with in this part of the system. Please say Agent or press zero, or say Main Menu or press nine, or just hang up.	
15106	1510-GLB-NowWhat-Prompt-Help	There's nothing more I can help you with in this part of the system. Please say Agent or press zero, or say Main Menu or press nine, or just hang up.	
<b>Option</b>		<b>Vocabulary</b>	<b>DTMF</b>
1510-GLB-NowWhat-Option-Goodbye		goodbye OK no	—
max timeout or max retry in this DM		—	—
add "agent agent" as synonym for "agent" in this DM			
<b>Confirmation prompts</b>		<b>Action</b>	<b>Confirm.</b>
<b>Option / Name</b>		<b>Wording</b>	
none			
<b>DialogModule parameters</b>			
<b>Parameter</b>		<b>Value</b>	
1510-GLB-NowWhat-Parameter			
after_end_of_speech_timeout		1,000 ms	
before_begin_of_speech_timeout		7,000 ms	
allowing_barge_in		True	

Deleted:




<b>Event logging</b>
<b>Developer notes</b>
Before entry to this DM, discard any speech input that was received.


### 2010-DMfailure-Msg

<b>Play Prompt</b>			
The number of retries or timeouts exceeded the maximum.			
<b>Entering from</b>			
any DM in this global module			
<b>Prompts</b>			
<b>Message Numbers</b>	<b>Name</b>	<b>Wording</b>	
20101	2010-GLB-DMfailure-Prompt1	I'm so sorry I'm not able to understand you.	
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>	
2010-GLB-DMfailure-Condition-Always	Always	NeedAssistanceWith := MaxRetry or MaxTimeout as appropriate Go to: 1510-NowWhat-VM	
<b>Event logging</b>			
<b>Developer notes</b>			
No barge-in			

### 2100-AfterHours-Check


<b>Branch on Condition</b>			
Branches on whether operators are standing by.			
<b>Entering from</b>			
1036-SystemAvailability-Check, Global Commands Vocabulary			
<b>Req ID</b>	<b>Condition</b>	<b>Action</b>	
2100-GLB-AfterHours-Condition-During	If During Hours	Go to: 2110-GettingHelpOperator-Msg	
2100-GLB-AfterHours-Condition-After	Else After Hours	Go to: 2211-ReturnToMain_or_HangUP-VM	
<b>Event logging</b>			
Pass NeedAssistanceWith value onto next state			

### 2101-ErrorAfterHours-Check


<b>Branch on Condition</b>			
A VoiceGenie error has occurred. Branch according to whether agents are available.			
<b>Entering from</b>			
anywhere, when a VoiceGenie error occurs			

Req ID	Condition	Action
2101-GLB-ErrorAfterHours-Condition-During	<i>IF During Hours</i>	Go to: 2111-ErrorGettingHelpOperator-Msg
2101-GLB-ErrorAfterHours-Condition-After	<i>Else After Hours</i>	Go to: 2112-ErrorAfterHours-Msg
<b>Event logging</b>		
Pass NeedAssistanceWith value onto next state		

## 2110-GettingHelpOperator-Msg


		Play Prompt	
Call needs assistance from live operator			
<b>Entering from</b>			
2100-AfterHours-Check			
<b>Prompts</b>			
Message Number	Condition	Name	Wording
21101	NeedAssistanceWith = ValidationFailure	2110-GLB-GettingHelpOperator-Prompt1	Hold on while I connect you to someone who can help you with this.
21102	NeedAssistanceWith = SysUnavailable	2110-GLB-GettingHelpOperator-Prompt2	I'm sorry, but the system is unavailable at this time. Please hold while I transfer your call to someone who can help you.
21103	NeedAssistanceWith = MaxTimeout or MaxRetry	2110-GLB-GettingHelpOperator-Prompt3	I'm sorry, but I just don't seem to understand you. Let me connect you to an agent who can help you. Please hold while I transfer your call.
21104	NeedAssistanceWith = UserRequestedAgent	2110-GLB-GettingHelpOperator-Prompt4	Sure. One moment. I'll transfer you to someone who can help.
<b>Condition</b>		<b>Action</b>	
Always 2110-GLB-GettingHelpOperator-Condition-Always		Go to: [TRXF TO AGENT]	
<b>Event logging</b>			
<b>Developer notes</b>			
No barge-in. The structure and wording here are taken from the BEVE/MRC application.			

## 2111-ErrorGettingHelpOperator-Msg


		Play Prompt	
A VoiceGenie error occurred and agents are available.			
<b>Entering from</b>			
2101-ErrorAfterHours-Check			
<b>Prompts</b>			
Message Number	Condition	Name	Wording
21111	Always	2111-GLB-ErrorGettingHelpOperator-Prompt1	I'm sorry, but there's a problem with the system and I can't continue. Hold on while I transfer you to an agent.

Req ID	Condition	Action
2111-GLB-ErrorGettingHelpOperator-Condition-1	Always	[TRXF TO AGENT]
<b>Event logging</b>		
<b>Developer notes</b>		
No barge-in		

### 2112-ErrorAfterHours-Msg

Play Prompt			
A VoiceGenie error occurred and agents are NOT available.			
<b>Entering from</b>			
2101-ErrorAfterHours-Check			
<b>Prompts</b>			
Message Number	Condition	Name	Wording
21121	Always	2112-GLB-ErrorAfterHours-Prompt1	I'm sorry, but there's a problem with the system and I have to hang up now. Please call again during business hours.
Req ID	Condition	Action	
2111-GLB-ErrorGettingHelpOperator-Condition-1	Always	[TRXF TO AGENT]	
<b>Event logging</b>			
<b>Developer notes</b>			
No barge-in			


### 2211-ReturnToMain\_or\_HangUP-VM

CustomContext				
Caller needs assistance with something, but operators are not available. Ask if the caller wants to return to the main menu or hang up.				
<b>Entering from</b>				
2100-AfterHours-Check				
<b>Prompts</b>				
Message Number	Type	Condition	Name	Wording
22110	Initial	NeedAssistanceWith = SysUnavailable	2211-GLB-ReturnToMain-Prompt-Initial1	I'm sorry, but the system is currently unavailable. Please try your call again later or try during business hours if you'd prefer to speak with an agent. But, if there's anything else you'd like to do, say "MAIN MENU". Otherwise just hang-up.

22111		NeedAssistanceWith = ValidationFailure	2211-GLB-ReturnToMain-Prompt-Initial2	Our offices are closed now, but you can call back to speak with an agent. Agents are available seven A M to seven P M, Monday through Friday, except national holidays. [2 sec pause] In the mean time, if there's something else you'd like to do, you can say Main Menu. Otherwise, just hang up now.	
22112		NeedAssistanceWith = MaxTimeout or MaxRetry	2211-GLB-ReturnToMain-Prompt-Initial3	I'm sorry, but I just don't seem to understand you. To speak with an agent, please call back during business hours. If there's anything else you'd like to do, say "MAIN MENU". Otherwise you can just hang-up.	
22113		NeedAssistanceWith = UserRequestedAgent	2211-GLB-ReturnToMain-Prompt-Initial4	Unfortunately, our offices are closed. To speak with an agent, please call back during business hours. If there's anything else you'd like to do, say "MAIN MENU". Otherwise you can just hang-up.	
22114		2211-GLB-ReturnToMain-Prompt-Retry1		[Global Default] I'm afraid you'll have to call back and speak with an agent during business hours. In the mean time, if there's anything else you'd like to do, say MAIN MENU or press nine. Otherwise you can just hang-up.	
22115		2211-GLB-ReturnToMain-Prompt-Retry2		[Global Default] Unfortunately, there are no agents available at this time. I'm afraid you'll have to call back during business hours. But if there's anything else you'd like to do, say MAIN MENU or press nine. Otherwise you can just hang up.	
22116		2211-GLB-ReturnToMain-Prompt-Timeout1		Sorry, I didn't hear you and I'm afraid our offices are currently closed. To speak with an agent, you'll have to call back. If there's anything else you'd like to do, say MAIN MENU or press nine. Otherwise you can just hang-up.	
22117		2211-GLB-ReturnToMain-Prompt-Timeout2		Sorry, I still didn't hear you and I'm afraid our offices are currently closed. To speak with an agent, you'll have to call back. If you'd like to return to the main menu, say MAIN MENU or press nine. If you'd like to end your call you can simply hang up.	
22118		2211-GLB-ReturnToMain-Prompt-Help		At this point, I'm afraid our offices are closed, so you'll have to call back if you'd like to speak with an agent. But you do have two other options. You can either say MAIN MENU or press nine, or you can end the call by simply hanging up.	
<b>Option</b>		<b>Vocabulary</b>	<b>DTMF</b>	<b>Action</b>	<b>Confirm.</b>
2211-GLB-ReturnToMain-Option-MainMenu		"Main Menu"	9	Go to: 2212-ThanksBeforeReturn-Msg	If necessary
2211-GLB-ReturnToMain-Option-Goodbye		"Goodbye"	—	Hang Up	never
<b>Confirmation prompts</b>					
<b>Message Number</b>	<b>Name</b>		<b>Wording</b>		
22119	2211-GLB-ReturnToMain-ConfPrompt-MainMenu		[I think you said] you wanted to return to the Main Menu. [Is that correct?]		

Confirmation Options	Vocabulary	DTMF	Confirm.
2211-GLB-ReturnToMain-ConfOption-Yes	"Yes [it is]" "[Yes] that's right" "Right" "[That's] correct"	1	Never
2211-GLB-ReturnToMain-ConfOption-No	"No [it isn't]" "[No] that's not right"	2	Never
DialogModule parameters			
Parameter	Value		
2211-GLB-ReturnToMain-Parameter			
after_end_of_speech_timeout	1,000 ms		
before_begin_of_speech_timeout	7,000 ms		
allowing_barge_in	True		
Event logging			
Developer notes			
On MaxTimeout, Max Retry or MaxHelp in this DM Hang Up. Disable Global Command Grammar. The structure and wording here are taken from the BEVE/MRC application.			

### 2212-ThanksBeforeReturn-Msg

		Play Prompt	
Thank caller before returning them to the main menu (N8NN).			
Entering from			
2211-ReturnToMain_or_HangUP-VM			
Prompts			
Message Number	Name	Wording	
22121	2212-GLB-ThanksBeforeReturn-Prompt-Initial	Sure. I'll transfer you now.	
Req ID	Condition	Action	
2212-GLB-ThanksBeforeReturn-Condition-Always	Always	transfer to main menu	
Event logging			
Developer notes			
No barge-in			

—End of Specification —