



Florida Operation Wireless (FLOW)

Abstract

This is the dialog design document for FLOWS. It details the dialog between the caller and the system. It is based on the SRS and it will be used to create a functional design.

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Revision History

| Version | Date | Author | Comment |
|---------|------------|--------------------------------|---|
| 2.0 | 2006-11-21 | Doug Wussler | Change the timing of foreign-language prompts in state 2000. |
| 1.9 | 2006-11-17 | Doug Wussler | Substitute '...a 2-1-1 counselor in...' in place of '...the 2-1-1 center for...' |
| 1.8 | 2006-11-08 | Scott Scurlock | Changes in 3000 & 3100 to handle invalid county selection. |
| 1.7 | 2006-10-03 | Doug Wussler | Minor edits. |
| 1.6 | 2006-09-22 | Doug Wussler | Some 2-1-1 centers support landline phones but not wireless phones and Jan Hanson requested a prompt change in 6000 to reflect this case. |
| 1.5 | 2006-09-22 | Doug Wussler | To correct defects detected during functional design in 3000, 3100 and 4000. |
| 1.4 | 2006-09-22 | Doug Wussler | Final decisions made on handling duplicate calls. Minor changes to prompts. VERSION APPROVED BY Jan Hanson. |
| 1.3 | 2006-09-15 | Doug Wussler | Minor edits from feedback during a recording session and feedback from Jan after the September FLAIRS conference. |
| 1.2 | 2006-08-31 | Doug Wussler | More commentary about duplicate city names and changes to how we handle cities without 2-1-1 service. |
| 1.1 | 2006-08-25 | Doug Wussler | Incorporated feedback from Jan Hanson |
| 1.0 | 2006-08-18 | Doug Wussler Scott Scurlock | Initial document based on SRS. |

Intended Audience

This document is intended for stakeholders in the FLOW project and for development personnel involved in the design, testing and deployment.

Purpose

The design document defines the dialog elements of the automated speech recognition application for FLOW.

Call Flow

The following diagram represents the call flow for the FLOW project.

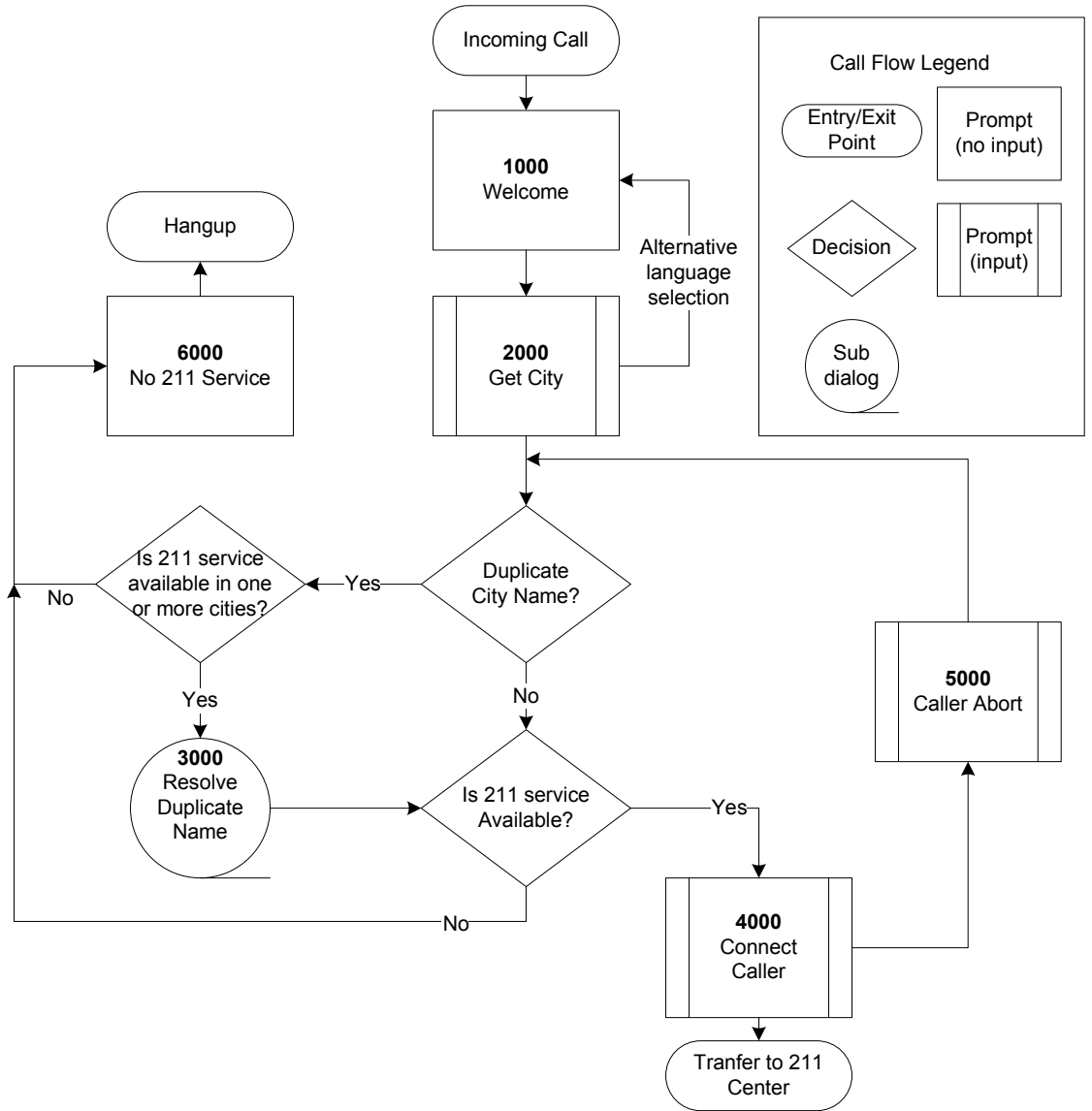


Figure 1: Call Flow

1000: Welcome

This dialog state is played when the phone is answered. Stakeholder preference is for brevity, so the following prompt has been chosen for this state:

Welcome to Florida's 2-1-1 network.

2000: Get City

This dialog state attempts to quickly get the name of the city the caller wants to reach.

We'll connect you to a 2-1-1 counselor. What city would you like?

This prompt immediately informs the caller that the system is going to connect them. This should help put the caller at ease. The plural case, "we," was chosen to convey the "network" aspect of 2-1-1 and that many resources are at work to assist the caller. The first-person plural case will be used throughout the dialog.

If the caller does not respond with an answer, or if we do not recognize what they say, we will re-prompt and then give the caller the opportunity to select another language. If another language is selected, we start over at the Welcome dialog state.

The reason we ask for their city before asking for a language preference is because the question is short and simple and might be understood even by Spanish and Haitian Creole speakers. The thought is that this will provide the most pleasant experience for the most people. Since the answer is a city name, we have a chance of successfully communicating with the caller even if English is not their primary language.

First English Timeout Prompt

In English **Please say the name of the city where you want 2-1-1 service and we'll connect you.**

In Spanish **To continue in Spanish, say "Spanish."** <go to Welcome state>

In Creole **To continue in Haitian Creole, press 3.** <go to Welcome state>

First Non-English Timeout Prompt

Please say the name of the city where you want 2-1-1 service and we'll connect you.

Second Timeout Prompt for all Languages

We're sorry, we didn't hear your response. Perhaps we have a bad connection or you need more time to think about your response. If you'd like to try again, please call back. We're here 24 hours a day, every day of the year. Goodbye for now.

<Hangup>

First English Non-Recognition Prompt

In English **We aren't sure we heard you correctly, please say that city name again.**

In Spanish **To continue in Spanish, say "Spanish."** <go to Welcome state>

In Creole **To continue in Haitian Creole, press 3.** <go to Welcome state>

First Non-English, Non-Recognition Prompt

We aren't sure we heard you correctly, please say that city name again.

Second Non-Recognition Prompt for all Languages

We apologize, but we couldn't understand your response. Perhaps we have a bad connection and we'll do better if you call back in a few minutes. We'll be here when you call. Goodbye for now.

<Hangup>

3000: Resolve Duplicate Name

This is a sub-dialog state where we resolve a duplicate city name.

The initial dialog state, 3000, is entered if the caller has given us a city name that has duplicate entries in the table. As of the date of this document we don't know the full scope of this problem but we have decided to utilize a city's county name as a unique identifier. If we find out later that for some reason the county name does not work well as a unique identifier, then this part of the project will have to be re-worked.

In the event that a caller says a county that is recognized by the grammar, but is not a valid choice for that city, we will treat this as an "I don't know" case and take the caller to state 3100.

Before using a county name to resolve a duplicate, we will inspect the caller's ANI to see if the area code will give us a hint to their city. If a reasonable area code is found then it will be used to resolve the duplicate without asking the caller for a county name.

If the ANI does not provide us with a clue then we can also consider the caller's language if FLAIRS has designated a preferred language for the duplicate city names. For instance, if there is a duplicate city name in south and north Florida and the caller has chosen Haitian Creole, FLAIRS can instruct us to default to the south Florida city by associating Creole with this city.

FLAIRS will need to provide a table that maps city names to their 2-1-1 centers, counties, area codes and language hints. Each set of duplicates will also need to have one and only one of the duplicates designated as the default city. This will allow us to connect the caller even if we have a timeout or non-recognition issue in trying to resolve the duplicate.

We've found more than one city named <city>. Please say the name of the county that <city> is located in, or say, "I don't know."

First Timeout Prompt

There is more than one city named <city> in Florida. So that we know which one you need, please tell us the name of the county where <city> is located, or say, "I don't know."

Second Timeout Prompt

We apologize, but we couldn't hear you. We'll try to help by connecting you to a 2-1-1 counselor in <city> in <county> county.

<Send caller to the default 2-1-1 center for duplicate city name>

First Non-Recognition Prompt

We apologize, we didn't catch that. Please say that county name again, or say, "I don't know."

Second Non-Recognition Prompt

We're sorry, but we couldn't understand what you said. We'll try to help by connecting you to a 2-1-1 counselor in <city> in <county> county.

<Send caller to the default 2-1-1 center for duplicate city name>

3100: I Don't Know

This dialog state is entered because we asked the caller to uniquely identify the city name in dialog state 3000 and the caller responded with "I don't know" or said an invalid county choice. The quickest and best experience is to ask the caller if they know the unique identifier, which is what we did in dialog state 3000. If they don't know the unique identifier then we can offer to let them choose from the ones we know about, which is what we'll do now.

"I don't know" Prompt

That's OK. I'll tell you the county names for <city> and you tell me which one you want. There is a city named <city> in <county1>, <county2>, ...and <countyn> counties. Which county is your city in? If you still don't know, say, "I don't know."

Invalid County Prompt

I'm sorry, that's not one of my choices. I'll tell you the county names for <city> and you tell me which one you want. There is a city named <city> in <county1>, <county2>, ...and <countyn> counties. Which county is your city in? If you still don't know, say, "I don't know."

First Timeout Prompt

You can choose the city named <city> in <county1>, <county2>, ... or <countyn> county. Please say the county for your city or say, "I don't know."

Second Timeout Prompt

We're sorry, but we can't hear you. We'll try to help by connecting you to a 2-1-1 counselor in <city> in <county> county.

<Send caller to the default 2-1-1 center for duplicate city name>

First Non-Recognition Prompt

We apologize, we didn't understand what you said. Please say that county name again, or say, "I don't know."

Second Non-Recognition Prompt

We're sorry, we couldn't understand you. We'll try to help by connecting you to a 2-1-1 counselor in <city> in <county> county.

<Send caller to the default 2-1-1 center for duplicate city name>

4000: Connect Caller

This dialog state confirms to the caller that we recognized their city name and that we are now going to connect them. The specific prompt we play upon entry is dependent on whether this is a duplicate city and how it was resolved:

Case 1: Not a duplicate city name or resolved without dialog:

OK, <city>. Please hold while we connect you to a 2-1-1 counselor in <city>.

Case 2: A duplicate city name resolved by a county name:

OK, that's <city> in <county> county. Please hold while we connect you to a 2-1-1 counselor in <city>.

Case 3: A duplicate city name resolved with "I don't know" or invalid county choice:

Most callers want the <city> in <county> county so we'll connect you there. Please hold while we connect you to a 2-1-1 counselor in <city>.

The first part of the prompt lets the caller know that we recognized their destination. It also gives them an opportunity to react if we got it wrong. We will be listening in case the caller says "no," "wrong," or something similar. If we hear this, we will break out of the dialog state and move to 5000: Caller Abort.

The second part of the prompt informs the caller that they are being connected.

5000: Caller Abort

This dialog state is used for the case where we detect the caller may be unhappy with the city name that we confirmed in State 4000: Connect Caller. If we hear a negative reaction to the city name that we confirmed then we will apologize and make a second effort to get the city name.

We're sorry, we seem to have misunderstood what you said. Will you please tell us that city name again?

First Timeout Prompt

Please tell us once more the city where you want 2-1-1 service.

Second Timeout Prompt

We're sorry, but we didn't hear your response. Perhaps we have a bad connection or you need more time to think about your response. If you'd like to try again, please call back. We're here 24 hours a day, every day of the year. Goodbye for now.

<Hangup>

First Non-Recognition Prompt

We're having trouble understanding you. Please say that city name one more time.

Second Non-Recognition Prompt

We apologize, but we couldn't understand what you said. Perhaps we have a bad connection and we'll do better if you call back in a few minutes. We'll be here when you call. Goodbye for now.

<Hangup>

Although this may seem like it has the potential to be a long dialog, we need to recognize that wireless callers may be on the road and temporarily find themselves in an area with poor transmission quality. This dialog tries to strike a balance between brevity and providing an opportunity for the caller to drive back into an area with better transmission quality and be understood by the speech recognition engine.

6000: No 2-1-1 Service

This dialog state is entered when the caller selects a city without 2-1-1 service. We need to let them know that the city they requested does not currently provide information and referral service.

We're sorry, but 2-1-1 wireless service is not yet available for <city>. 2-1-1 services are the responsibility of each local community and not all communities in Florida are currently providing this information-and-referral service. Your community may expand 2-1-1 services some time in the future so please check back at a later time. We're here 24 hours a day, every day of the year. Goodbye for now.