



Florida Operation Wireless (FLOW)

Abstract

FLOW is a speech-enabled application for wireless phone calls to 2-1-1 in Florida. Wireless calls to 2-1-1 are carried to a PATLive IVR where the caller is asked for the name of a city where they need information or referral services. The caller is routed to a 2-1-1 network center based on their answer.

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Revision History

Version	Date	Author	Comment
1.1	2006-08-04	Doug Wussler	Incorporated edits from Janet Bard Hanson.
1.0	2006-08-04	Doug Wussler	Initial document based on discussion with Janet Bard Hanson.

Scope

Intended Audience

This document is intended for interested members of the Florida Alliance for Information and Referral Services (FLAIRS) and the DMS Vendor Team (DMS, Deltacom, Embarq & PATLive) who are responsible for developing the application.

Purpose

In July 2000, the dial string 2-1-1 was reserved by the FCC for local human service information and referral services. In Florida, the Agency for Health Care Administration certifies 2-1-1 Network Centers based on national accreditation standards. There are currently 14 2-1-1 Network Centers and it is anticipated that 3 to 5 more may be certified within the next couple of years. When 2-1-1 is dialed from a wireline phone, the local exchange company routes the call to the local 2-1-1 network center, if one exists.

FLAIRS is a statewide association of agencies and individuals committed to the provision of quality information, referral and hotline services.

Wireless callers present new challenges to the delivery of 2-1-1 calls. Unlike a wireline caller, a wireless caller cannot be automatically associated with a specific regional answering center because of the mobility of the phone and because of the architecture of the cell phone switching network. FLOW is a solution for routing wireless 2-1-1 calls to an appropriate 2-1-1 network center.

Goals

G1: Minimize the Time Required to Service the Caller

A critical component of 2-1-1 services is short-term crisis counseling. Callers may be in crisis, therefore it is important to deliver them without delay. Although a high degree of accuracy is desirable, speed is more important than accuracy. If they end up at the wrong 2-1-1 network center at least that network center can refer them to the correct phone number for the right network center.

G2: Provide a Comfortable and Natural Experience for the Caller

Callers might be surprised by connecting to our application instead of directly to a 2-1-1 network center. An opening prompt such as "Welcome to Florida's 2-1-1 Network" will ensure they don't react by hanging up or feeling that they called the wrong number. We want them to understand we're here to help move them quickly to their destination.

Stakeholders

Stakeholders are responsible for approving the requirements.

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2-1-1 Big Bend

Project Constraints

The following items are considered to be constraints that will impact the project:

1. Automated speech recognition does not support the Haitian Creole language.
2. We do not have reliable information on what to expect for Busy Hour Traffic.
3. The 2-1-1 network centers will not all be participating in the application when it rolls out. They may participate individually over time.
4. The caller's ANI will not always be available to us and even when it is it may not be reliable.

Project Requirements

R1: Identify Callers by City Name

The wireless network carriers in Florida will route 2-1-1 calls to a toll-free number designated for their network by Deltacom. Deltacom will carry the call to PATLive. PATLive needs to identify the city where the caller needs service. There are some duplicate city names in Florida so these need to be identified and handled on an individual basis. There are also some alternative pronunciations of names based on individual community traditions that may require tuning.

R2: Use Caller's ANI for Secondary Identification

When the caller's city name cannot be recognized or otherwise ascertained, the caller's ANI should be examined for helpful information. If a sensible area code is available then that can be used to determine a destination 2-1-1 network center.

R3: Use Caller's Language for Tertiary Identification

When the caller's city name is not available and the area code is not helpful, use the caller's language selection to help with identification.

R4: Transfer the Caller based on a Client-Provided Map

The client will provide three maps:

1. Florida city names to 2-1-1 network centers.
2. Florida area codes to 2-1-1 network centers.
3. Distribution map for when caller identification cannot be determined. The distribution map needs to consider the language of a caller. For instance, a Haitian Creole caller will always be directed to a southern network center when no other identifying information is available.

These maps will be dynamic and subject to frequent change.

Each 2-1-1 network center will have a toll-free number assigned to it by Deltacom. PATLive needs to utilize take-back & transfer to send the caller back to Deltacom for delivery to the appropriate 2-1-1 network center.

The distribution map may distribute calls based on a round-robin or percentage-based algorithm but the caller's language will also be a consideration.

Some cities and area codes may not yet have a 2-1-1 network center and a message will need to be given to these callers.

R5: Accommodate a Backup Map

One or more of the network centers may be associated with a backup 2-1-1 network center. The application needs to accommodate requests to re-direct callers to the backup network center.

R6: Automatic Scheduling of Backup Network Centers

Some network centers close down overnight, on the weekends and on holidays, and forward their traffic to backup sites. The application needs to handle this automatically based on a predetermined schedule.

R7: Manual Override for Network Center Location

In addition to a backup map and automatic scheduling of backup network centers, there needs to be a provision for ad-hoc requests to re-direct traffic from any particular network center to any other network center or even to a location not previously known or to a center out-of-state.

R8: Support for English, Spanish & Haitian Creole

The application needs to accommodate the English, Spanish and Haitian Creole languages. Although automated speech recognition is not available for the Creole language, every effort needs to be made to recognize a city name spoken by a Haitian Creole speaker.

R9: Traffic Reports

Normal traffic reports are expected as well as reports for the following values:

- Originating wireless network
- Terminating network center
- Caller identification attributes
 - City Name
 - Area Code
 - Language

These reports should be available on a daily basis for the prior day's activity and in a monthly summary format for each calendar month.

R10: Invoicing

Each 2-1-1 network center is to receive their own invoice. Invoice copies and a combined invoice needs to go to FLAIRS. The invoice includes a usage component for calls that were positively identified for each network center. The invoice also includes a charge for fixed costs and for calls that were not positively identified. This charge is variable based on each network center's percentage of the total number of calls. The invoices are issued monthly for each calendar month