

# Irregular Operations (IROP)

Rethinking the delta.com Itinerary experience: Designing a best-case experience for the worst-case scenario.

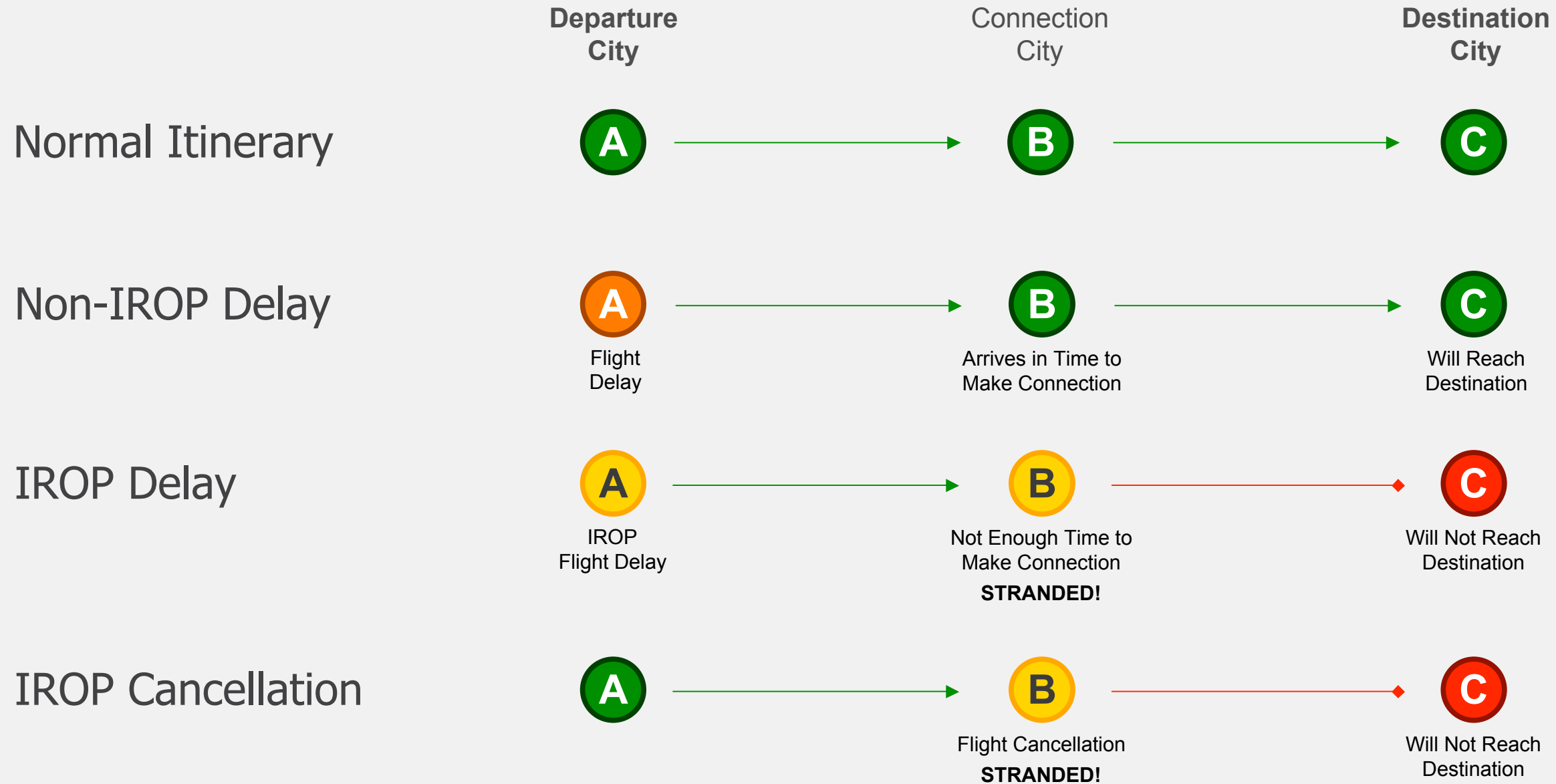
## Goals & Objectives

**Migrate IROP recovery** from a system/customer service task **to an online/self-service task.**

- Enable **self-service resolution** of customer service failures
- Provide customers **choices for recovery** in the event of an IROP
- **Achieve competitive parity** with Continental and Northwest
- Meet or **exceed Executive mandate** by:
  - **offering more customer self-service** capabilities on delta.com
  - delivering a solution **before the Summer travel season**

What is an IROP?

An IROP is a **specific, time-sensitive scenario** in which a **flight delay or cancellation** will **cause a passenger to be stranded at any connecting point** in a trip.



## High-Level Requirements

This project **required a redesign of the Itineraries experience to offer new functionality** on delta.com that would allow customers experiencing an IROP to:

- **View dynamic messaging & alerts** for specific IROP scenarios
  - Changes in flight status
  - IROP alerts & options
  
- **Develop & integrate IROP functionality into itineraries** experience
  - Find Alternate Flights
  - Add Standby Option
  - Change Alternate Flights
  
- **Based on IROP scenario & status, prioritize & enable actions at specific times in experience**

But before we dig deeper, you'll need to **know these key IROP-related terms and distinctions.**

### **Protected vs. Non-Protected**

Protected = Passenger is "confirmed" (has a seat) on at least one alternate flight for IROP  
Not Protected = Passenger has no "confirmed" alternate flight for IROP

### **PNR is Clean vs. PNR is not Clean**

PNR is Clean = Passenger is protected/confirmed on only one alternate flight  
PNR is not Clean = Passenger is protected/confirmed on more than one alternate flight or has no protection

### **Auto-Protection vs. Manual Protection**

Auto-Protection = The system or an agent has booked alternate flights for the passenger  
Manual Protection = Passenger has found and confirmed an alternate flight for self

### **Single Protection vs. Multiple Protection**

Single Protection = The system (auto/agent) has booked or the passenger (manual) has accepted/found and booked ONE confirmed alternate flight  
Multiple Protection = The system (auto/agent) has booked the passenger on MULTIPLE confirmed alternate flights and has not yet "cleaned" the PNR

### **Alternate Flight vs. Standby Option**

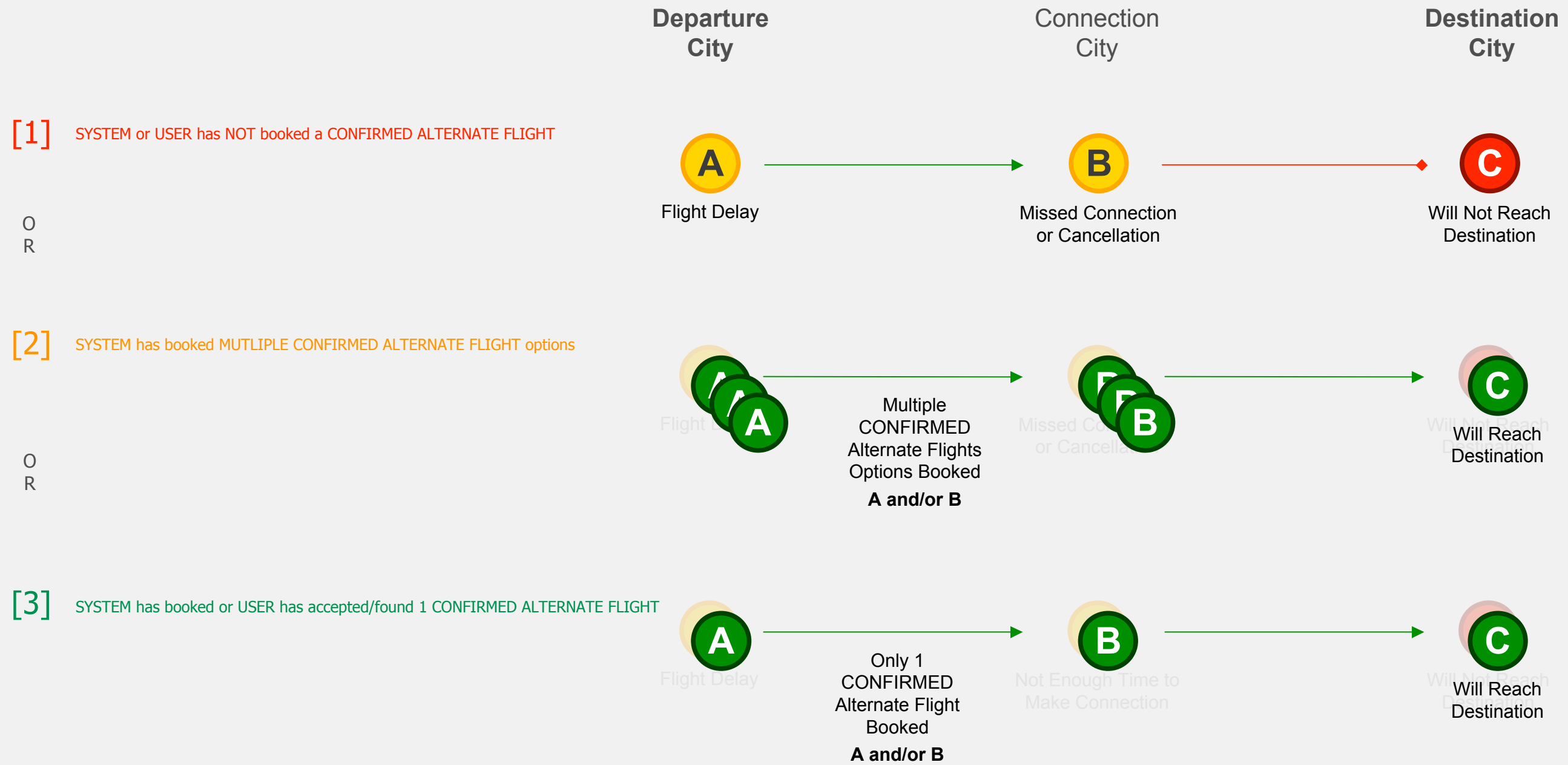
Alternate Flight = Protected/confirmed status flight option to replace IROP'd flight  
Standby Option = Unconfirmed flight option that can be added only AFTER protection in place

### **Change Flights vs. Find Alternate Flights**

Change Flights = Voluntary tix reissue for non-IROP'd flight according to purchase T&Cs (for a fee)  
Find Alternate Flights = Involuntary tix reissue for IROP'd flight within the IROP window (free of charge)

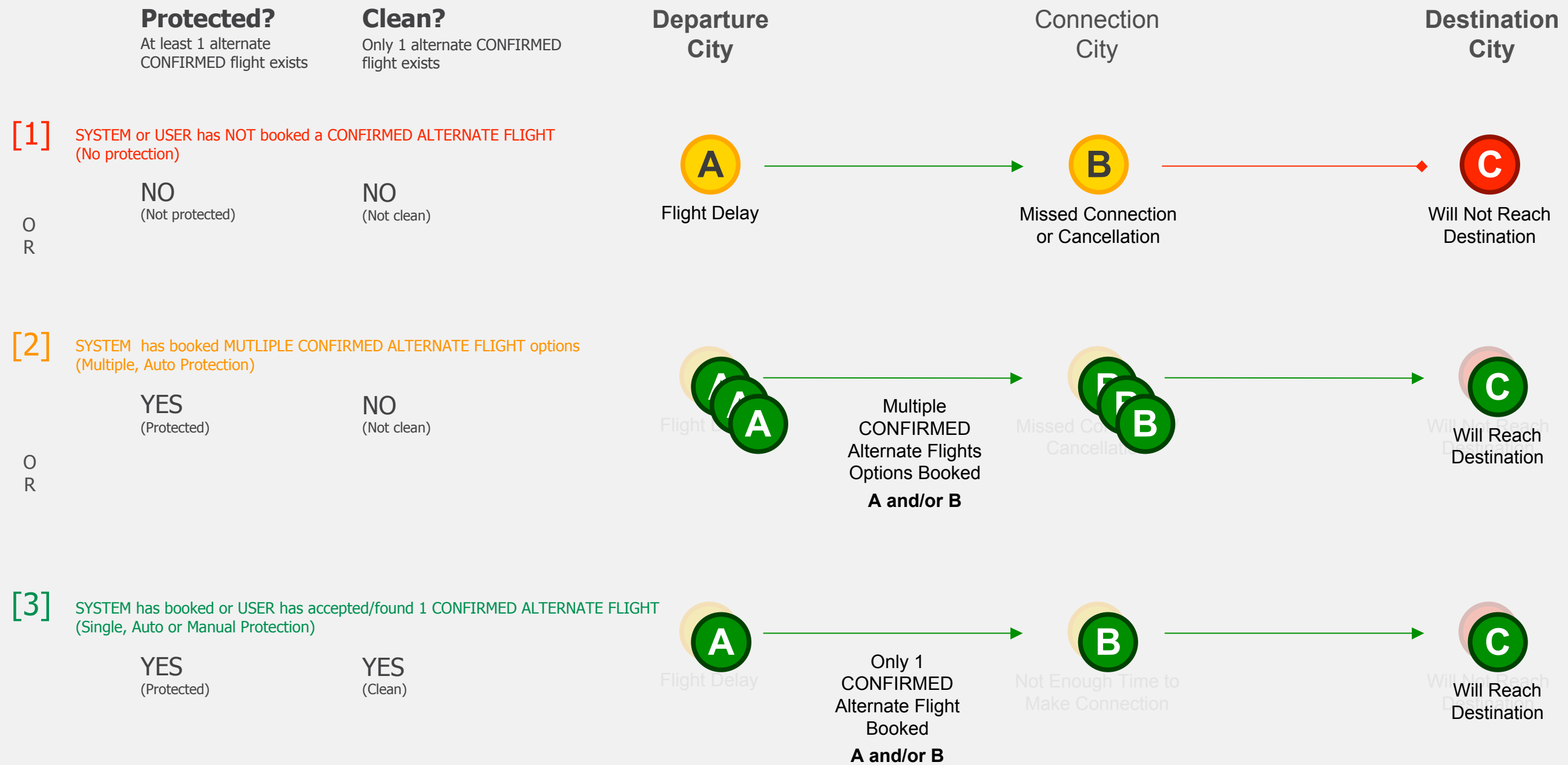
# High-Level IROP Scenarios

When an **IROP'd itinerary** is retrieved at delta.com, it **will be in one of the following states:**



Let's see that again!

And this is how we talk about and **define these different states of an IROP:**

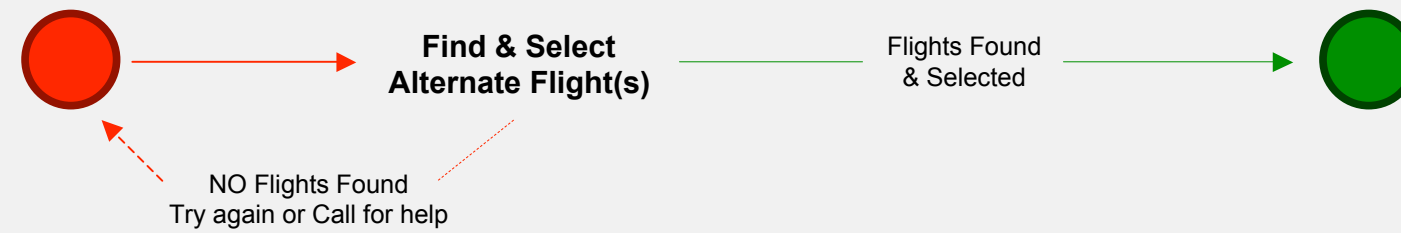


## “Unclean” PNR State Scenarios - Flows & Options

The **ultimate goal in any IROP scenario**—whether by the system (auto/agent) or user (manual) is to (a) “protect” and then (b) “clean” the PNR.

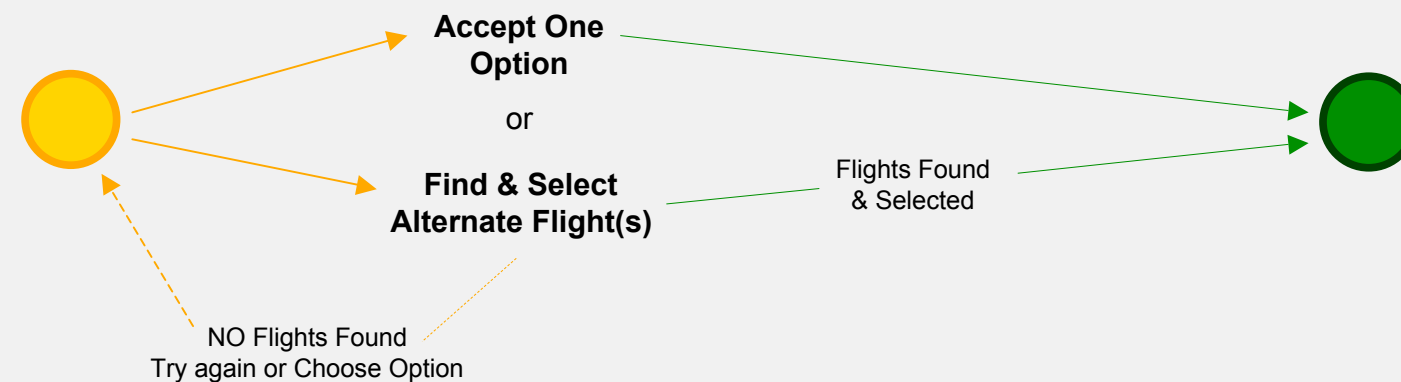
PNR States >  Not Protected/Not Clean  Protected/Not Clean  Protected/Clean

[1] SYSTEM or USER has NOT booked a CONFIRMED ALTERNATE FLIGHT (No protection)



O  
R

[2] SYSTEM has booked MULTIPLE CONFIRMED ALTERNATE FLIGHT options (Multiple, Auto Protection)

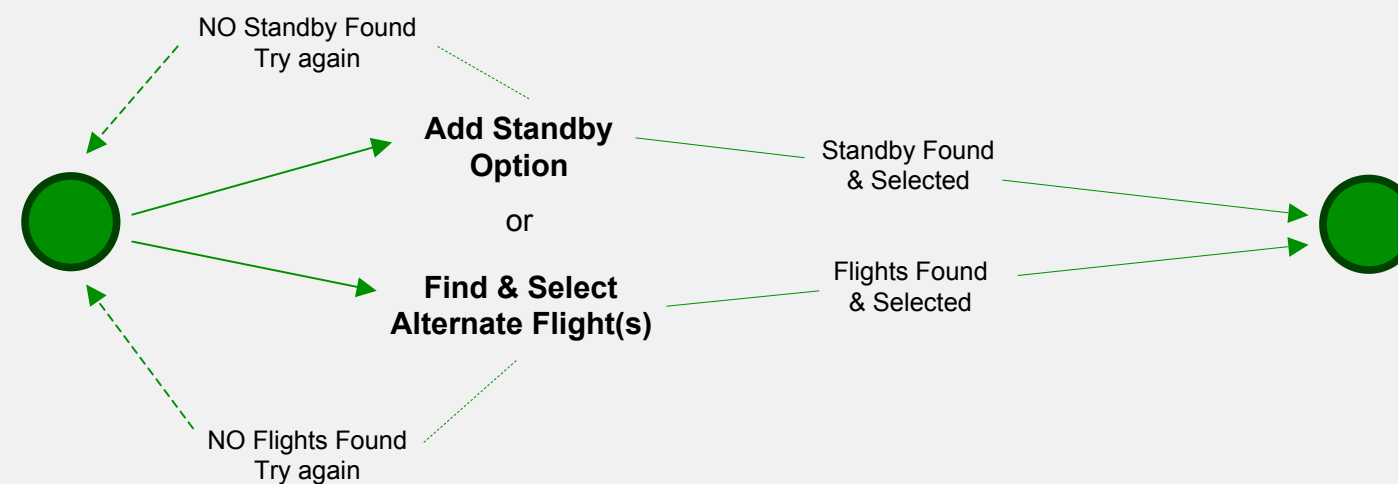




## “Clean” PNR State Scenarios - Flows & Options

Once the PNR is clean, the user can **continue to search for & change alternate flight options and add a standby option** until the IROP remark is removed from the PNR.

[3] SYSTEM has booked or USER has accepted/found 1 CONFIRMED ALTERNATE FLIGHT



### Standby Option Rules

- Only 1 standby option can exist at a time.
- Standby option must match routing of NEW, CONFIRMED flight
- When user selects “Add Standby Option”, system automatically searches for available options and will only return flights departing EARLIER than new, confirmed flight (but still in IROP rebooking window).
- Once a standby option is added to PNR, (a) “Standby Option” flight table is displayed in “Trip Details” and (b) “Add Standby Option” functionality is disabled.
- If standby option has been added to PNR and user finds/selects new alternate flight, (a) existing standby option is eliminated and (b) “Add Standby Option” functionality is re-enabled.

# The Old Itineraries Experience — Normal vs. IROP

In the existing experience, there was **little distinction between normal and IROP'd itineraries.**

**Itinerary Summary Area**  
Appears with no Trip Details opened on default when user is LOGGED IN or SEARCHES BY CREDIT CARD and MORE THAN 1 itinerary exists  
Contains summary info & functionality for all applicable itineraries.

**Trip Details Area**  
Appears alone when user searches for SPECIFIC ITINERARY or is LOGGED IN and ONLY 1 itinerary exists or when user selects an Itinerary in summary table (when applicable)  
Contains detailed flight info & functionality for all flights associated with a specific itinerary  
1 table with all flights on itinerary

**Your Seating Module**  
Contains detailed seating info & functionality for all passengers & flights associated with a specific itinerary (including SSRs)

**Itinerary Search Module**  
Always appears on the itineraries page

## Normal Itinerary Scenarios

**Trip Details**  
Columbus, OH (CMH) to Cincinnati, OH (CVG) Confirmation Number : B1QOYL

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Carrier Flight Number	Departs	Arrives	Cabin & Class	Flight Segment Status	Upgrade Status	
Delta 1773	Columbus, OH (CMH) Gate: N/A	7:25am 4 Apr 2008 Cincinnati, OH (CVG) Gate: N/A	8:11am 4 Apr 2008	First (V)	Confirmed	Confirmed
Delta 5091 <sup>1</sup>	Cincinnati, OH (CVG) Gate: N/A	8:55am 4 Apr 2008 Miami, FL (MIA) Gate: N/A	11:28am 4 Apr 2008	Coach (Y)	Confirmed	Not Eligible
Delta 5096 <sup>1</sup>	Miami, FL (MIA) Gate: N/A	11:45am 24 Apr 2008 Cincinnati, OH (CVG) Gate: N/A	2:30pm 24 Apr 2008	Coach (Y)	Confirmed	Not Eligible
Delta 6216 <sup>2</sup>	Cincinnati, OH (CVG) Gate: N/A	3:05pm 24 Apr 2008 Columbus, OH (CMH) Gate: N/A	3:55pm 24 Apr 2008	Coach (Y)	Confirmed	Not Eligible

Price per passenger: \$ 1,596.00(USD)  
SkyMiles earned = 2896; MQM earned = 4344; (details) Per passenger

<sup>1</sup> Operated By Comair <sup>2</sup> Operated By Chautauqua Airlines

**Trip Details**  
Atlanta, GA (ATL) to Raleigh/Durham, NC (RDU) Confirmation Number : DS7CC4

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Carrier Flight Number	Departs	Arrives	Cabin & Class	Flight Segment Status	Upgrade Status	
Delta 967	Atlanta, GA (ATL) Gate: N/A	7:00am 23 Aug 2007 Raleigh/Durham, NC (RDU) Gate: N/A	8:25am 23 Aug 2007	Coach (K)	Confirmed	Request Only
Delta 5489 <sup>1</sup>	Raleigh/Durham, NC (RDU) Gate: N/A	9:14am 23 Aug 2007 New York-La Guardia, NY (LGA) Gate: N/A	10:53am 23 Aug 2007	Coach (K)	Confirmed	Not Eligible
Delta 5571 <sup>1</sup>	New York-La Guardia, NY (LGA) Gate: N/A	7:05am 30 Aug 2007 Charlotte, NC (CLT) Gate: N/A	9:22am 30 Aug 2007	Coach (U)	Confirmed	Not Eligible
Delta 1419	Charlotte, NC (CLT) Gate: N/A	8:05am 30 Aug 2007 Atlanta, GA (ATL) Gate: N/A	9:12am 30 Aug 2007	Coach (L)	Confirmed	Request Only
Delta 1419	Charlotte, NC (CLT) Gate: N/A	10:20am 30 Aug 2007 Atlanta, GA (ATL) Gate: N/A	11:45am 30 Aug 2007	Coach (L)	Confirmed	Request Only

Schedule has changed. [View Original](#)

Total Fare Per Passenger: \$616.10(USD)  
SkyMiles Earned = 0; MQM earned = 0 per passenger

Flight 1419 is delayed, but is not an IROP.

## IROP Itinerary Scenarios

**Trip Details**  
Hartford, CT (BDL) to Atlanta, GA (ATL) Confirmation Number : PPDZJS

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Carrier Flight Number	Departs	Arrives	Cabin & Class	Flight Segment Status	
Delta 1025	Hartford, CT (BDL) Gate: A12	6:10am 20 Mar 2008 Atlanta, GA (ATL) Gate: B13	8:48am 20 Mar 2008	Coach (L)	Confirmed
Delta 1171	Atlanta, GA (ATL) Gate: E31	9:30am 20 Mar 2008 Jacksonville, FL (JAX) Gate: A4	10:40am 20 Mar 2008	Coach (L)	Confirmed
Delta 1167	Atlanta, GA (ATL) Gate: B2	12:00pm 20 Mar 2008 Jacksonville, FL (JAX) Gate: A4	1:01pm 20 Mar 2008	Coach (Y)	Waitlisted
Delta 1534	Jacksonville, FL (JAX) Gate: A4	7:26pm 20 Mar 2008 Atlanta, GA (ATL) Gate: A5	8:48pm 20 Mar 2008	Coach (L)	Confirmed
Delta 1424	Atlanta, GA (ATL) Gate: A5	9:45pm 20 Mar 2008 Hartford, CT (BDL) Gate: A11	11:00am 21 Mar 2008	Coach (L)	Confirmed

Price per passenger: N/A

Flight 1025 is delayed.  
Flight 1167 is a standby option, which means passenger is NOT protected.

**Trip Details**  
Hartford, CT (BDL) to Atlanta, GA (ATL) Confirmation Number : PT1M10

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Carrier Flight Number	Departs	Arrives	Cabin & Class	Flight Segment Status	
Delta 1025	Hartford, CT (BDL) Gate: A12	6:10am 20 Mar 2008 Atlanta, GA (ATL) Gate: B13	8:48am 20 Mar 2008	Coach (U)	Confirmed
Delta 1400	Atlanta, GA (ATL) Gate: A15	10:05am 20 Mar 2008 Fort Walton Beach, FL (VPS) Gate: B2	10:21am 20 Mar 2008	Coach (U)	Confirmed
Delta 675	Atlanta, GA (ATL) Gate: B31	5:00pm 20 Mar 2008 Fort Walton Beach, FL (VPS) Gate: B2	5:15pm 20 Mar 2008	First (F)	Confirmed
Delta 4367	Fort Walton Beach, FL (VPS) Gate: N/A	6:00am 25 Mar 2008 Atlanta, GA (ATL) Gate: N/A	7:58am 25 Mar 2008	Coach (U)	Confirmed
Delta 1080	Atlanta, GA (ATL)	9:28am 25 Mar 2008 Hartford, CT (BDL)	11:55am 25 Mar 2008	Coach (U)	Confirmed

Price per passenger: \$ 422.00(USD)

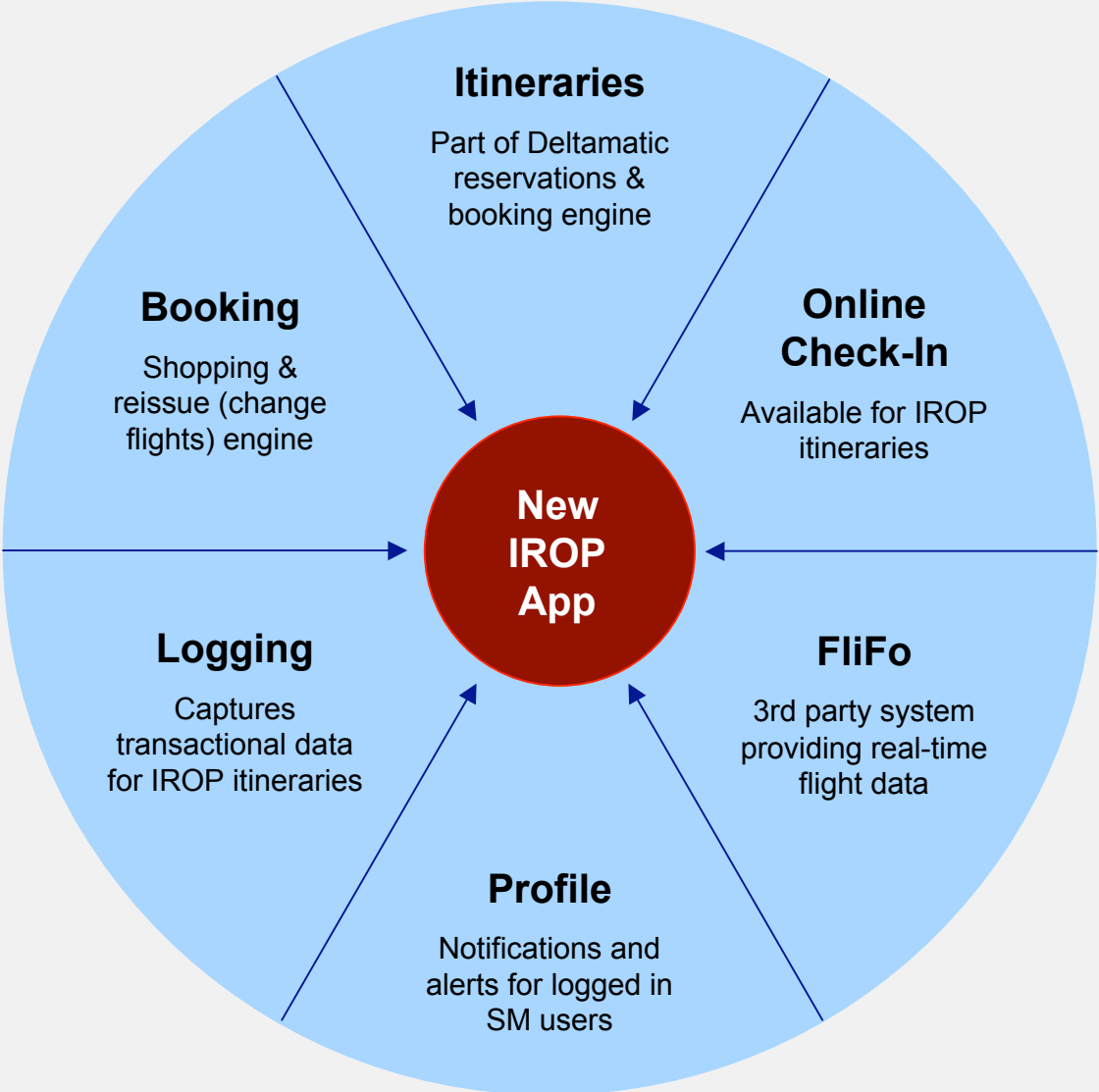
Flight 1025 is delayed and 1400 is delayed.  
Flight 645 is the new protected flight, which is booked in First Class.

**Integrating new IROP functionality and requirements** into the itinerary experience presented a number of **unique questions and challenges**.

- Should the “normal” and “IROP” itinerary experiences be separate or different states of the same page?
- If different experiences > Would users used to the normal experience be even more confused by a different looking IROP experience in an already confusing/alarming situation?
- If different states of same experience > Would need to optimize the “normal” itinerary experiences (and all applicable scenarios) to accommodate and remain relatively consistent with IROP experience.

Systems & Applications Overview

To further complicate matters, **many different systems and applications come into play** for both the normal and IROP itineraries experiences.



# User-Testing First Round - Scenario 1

In April 2008, we tested two IROP scenarios using detailed wireframes—without redesigning the existing itinerary page layout or addressing the standby option requirement.

## Scenario 1

### DETAILS

- Family of 4
- Leisure Travel
- Logged In
- IROP Delay
- Multiple Protection

### FLOW

- (1) delta.com HOME
- (2) Logs in
- (3) Retrieve itinerary
- (4) Reviews/Selects Option
- (5) Verifies changes
- (6) Updated itinerary/confirmation
- (7) Online check-in (new flight)

**Itineraries**

We're sorry, there has been an unscheduled flight change affecting one or more of your itineraries. Please [view your options](#) in Trip Details below to accept a new flight or find an alternate one.

1 Itinerary displayed matching 2489928453

Confirmation Number	Departs	Arrives	Flight Number	More Info and Options
3B9S2T	Denver, CO (DEN), 3 May 2008 6:20AM	Orlando, FL (MCO), 3 May 2008 1:55PM	DL780	<a href="#">Trip Details</a>

**Trip Details**

Denver, CO (DEN) to Atlanta, GA (ATL) Confirmation Number: 3B9S2T

We're sorry, there has been an unscheduled flight change affecting one or more of your itineraries. Please review your Trip Details below, then choose if you'd like to accept one of our suggested flight options or search for alternate flights.

**Your Flight(s):**

Carrier Flight Number	Departs	Arrives	Cabin & Class	Upgrade Status	Flight Status
Delta 780	Denver, CO (DEN) Gate: C42 6:20am (Scheduled) 3 May 2008	Atlanta, GA (ATL) Gate: B12 11:00am (Scheduled) 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time Delayed departure will cause misconnect
Delta 1851	Atlanta, GA (ATL) Gate: B21 12:30pm 3 May 2008	Orlando, FL (MCO) Gate: 90 1:55pm 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time

**Your Options**

To ensure you arrive at your destination with as little inconvenience as possible, please accept one of the suggested flight options below or click [Find Alternate Flights](#) to search for additional flights at no extra cost.

Option	Carrier Flight Number	Departs	Arrives	Cabin & Class	Upgrade Status	Flight Status
Option 1	Delta 1244	Denver, CO (DEN) Gate: C48 7:45am 3 May 2008	Atlanta, GA (ATL) Gate: B36 12:31pm 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time
	Delta 1804	Atlanta, GA (ATL) Gate: B17 1:30pm 3 May 2008	Orlando, FL (MCO) Gate: 72 2:56pm 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time
Option 2	Delta 38	Denver, CO (DEN) Gate: C44 10:47am 3 May 2008	Atlanta, GA (ATL) Gate: B18 3:39pm 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time
	Delta 11	Atlanta, GA (ATL) Gate: B23 4:30pm 3 May 2008	Orlando, FL (MCO) Gate: 80 5:58pm 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time

**Return Flight(s)**

Carrier Flight Number	Departs	Arrives	Cabin & Class	Upgrade Status	Flight Status
Delta 1228	Orlando, FL (MCO) Gate: 90 1:45pm 11 May 2008	Cincinnati, OH (CVG) Gate: A24 3:55pm 11 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time
Delta 1220	Cincinnati, OH (CVG) Gate: A5 5:00pm 11 May 2008	Denver, CO (DEN) Gate: C23 6:01pm 11 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time

Price per passenger: \$338.00(USD)  
SkyMiles earned = 1522 MQM earned = 1522 (details)  
Per passenger

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**Itineraries**

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1 Itinerary displayed matching 2489928453

Confirmation Number	Departs	Arrives	Flight Number	More Info and Options
3B9S2T	Denver, CO (DEN), 3 May 2008 6:20AM	Orlando, FL (MCO), 3 May 2008 1:55PM	DL780	<a href="#">Trip Details</a> <a href="#">Check In</a>

**Your Flight(s):**

Carrier Flight Number	Departs	Arrives	Cabin & Class	Upgrade Status	Flight Status
Delta 780	Denver, CO (DEN) Gate: C42 6:20am (Scheduled) 3 May 2008	Atlanta, GA (ATL) Gate: B12 11:06am (Scheduled) 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time Delayed departure will cause misconnect
Delta 1851	Atlanta, GA (ATL) Gate: B21 12:30pm 3 May 2008	Orlando, FL (MCO) Gate: 90 1:55pm 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time

**Your Options**

To ensure you arrive at your destination with as little inconvenience as possible, please accept one of the suggested flight options below or click [Find Alternate Flights](#) to search for additional flights at no extra cost.

Option	Carrier Flight Number	Departs	Arrives	Cabin & Class	Upgrade Status	Flight Status
Option 1	Delta 1244	Denver, CO (DEN) Gate: C48 7:45am 3 May 2008	Atlanta, GA (ATL) Gate: B36 12:31pm 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time
	Delta 1804	Atlanta, GA (ATL) Gate: B17 1:30pm 3 May 2008	Orlando, FL (MCO) Gate: 72 2:56pm 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time
Option 2	Delta 38	Denver, CO (DEN) Gate: C44 10:47am 3 May 2008	Atlanta, GA (ATL) Gate: B18 3:39pm 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time
	Delta 11	Atlanta, GA (ATL) Gate: B23 4:30pm 3 May 2008	Orlando, FL (MCO) Gate: 80 5:58pm 3 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time

**Return Flight(s)**

Carrier Flight Number	Departs	Arrives	Cabin & Class	Upgrade Status	Flight Status
Delta 1228	Orlando, FL (MCO) Gate: 90 1:45pm 11 May 2008	Cincinnati, OH (CVG) Gate: A24 3:55pm 11 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time
Delta 1220	Cincinnati, OH (CVG) Gate: A5 5:00pm 11 May 2008	Denver, CO (DEN) Gate: C23 6:01pm 11 May 2008	Coach (B)	Not eligible	Reservation: Confirmed Flight: On time

Price per passenger: \$338.00(USD)  
SkyMiles earned = 1522 MQM earned = 1522 (details)  
Per passenger

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## User-Testing First Round - Scenario 2

In April 2008, we tested two IROP scenarios using detailed wireframes—without redesigning the existing itinerary page layout or addressing the standby option requirement.

### Scenario 2

#### DETAILS

Couple (2 pax)  
Leisure Travel  
Not Logged In  
First Class/SSR on Affected Flight  
IROP Cancellation  
No Protection

#### FLOW

- (1) delta.com HOME
- (2) Retrieves itinerary
- (3) Clicks “Find Alternate Flights”
- (4) Enters search parameters
- (5) Reviews/Selects Option
- (6) Updated itinerary/confirmation
- (7) Online check-in (new flight)

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### Itineraries

We're sorry, there has been an unscheduled flight change affecting one or more of your itineraries. Please [view your options](#) in Trip Details below to find an alternate flight.

1 Itinerary displayed matching 3590039564

Confirmation Number	Departs	Arrives	Flight Number	More Info and Options
5B3R8V	Kansas City, MO (MCI), 24 May 2008 7:15AM	New York-La Guardia, NY (LGA), 24 May 2008 1:55PM	DL5496	<a href="#">Trip Details</a> <input type="button" value="Check In"/>

All times local → [New Search](#) → [Create reservation](#) → [Request a ticket refund](#)

#### Trip Details

Kansas City, MO (MCI) to Atlanta, GA (ATL) Confirmation Number: 3B9S2T

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#### Your Flight(s):

Carrier Flight Number	Departs	Arrives	Cabin & Class	Upgrade Status	Flight Status
<b>Affected Flight(s)</b>					
Delta 5496	Kansas City, MO (MCI) Gate: 33	Atlanta, GA (ATL) Gate: B29	10:20am (Scheduled) 24 May 2008	First (F)	Confirmed
<b>Cancelled</b>					Reservation: Confirmed Flight: Cancelled
Delta 514	Atlanta, GA (ATL) Gate: B7	New York-La Guardia, NY (LGA) Gate: 5	1:55pm 24 May 2008	First (F)	Confirmed
					Reservation: Confirmed Flight: On time

Price per passenger: \$1350.98(USD)

**Your Options**

To ensure you arrive at your destination with as little inconvenience as possible, please click [Find Alternate Flights](#) to search for a new flight at no extra cost.

#### Return Flight(s)

Delta 917	New York-La Guardia, NY (LGA) Gate: 5	Atlanta, GA (ATL) Gate: B17	2:34pm 31 May 2008	First (F)	Confirmed	Reservation: Confirmed Flight: On time
Delta 978	Atlanta, GA (ATL) Gate: B7	Kansas City, MO (MCI) Gate: 33	4:43pm 31 May 2008	First (F)	Confirmed	Reservation: Confirmed Flight: On time

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### Itineraries

We're sorry, there has been an unscheduled flight change affecting one or more of your itineraries. Please [view your options](#) in Trip Details below to find an alternate flight.

1 Itinerary displayed matching 3590039564

Confirmation Number	Departs	Arrives	Flight Number	More Info and Options
5B3R8V	Kansas City, MO (MCI), 24 May 2008 7:15AM	New York-La Guardia, NY (LGA), 24 May 2008 1:55PM	DL5496	<a href="#">Trip Details</a> <input type="button" value="Check In"/>

#### Trip Details

Kansas City, MO (MCI) to Atlanta, GA (ATL) Confirmation Number: 3B9S2T

We're sorry, there has been an unscheduled flight change affecting one or more of your itineraries. Please review your Trip Details below, then click [Find Alternate Flights](#) to search for a new flight.

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#### Your Flight(s):

Carrier Flight Number	Departs	Arrives	Cabin & Class	Upgrade Status	Flight Status
<b>Affected Flight(s)</b>					
Delta 5496	Kansas City, MO (MCI) Gate: 33	Atlanta, GA (ATL) Gate: B29	10:20am (Scheduled) 24 May 2008	First (F)	Confirmed
<b>Cancelled</b>					Reservation: Confirmed Flight: Cancelled
Delta 514	Atlanta, GA (ATL) Gate: B7	New York-La Guardia, NY (LGA) Gate: 5	1:55pm 24 May 2008	First (F)	Confirmed
					Reservation: Confirmed Flight: On time

**Your Options**

To ensure you arrive at your destination with as little inconvenience as possible, please click [Find Alternate Flights](#) to search for a new flight at no extra cost.

#### Return Flight(s)

Delta 917	New York-La Guardia, NY (LGA) Gate: 5	Atlanta, GA (ATL) Gate: B17	2:34pm 31 May 2008	First (F)	Confirmed	Reservation: Confirmed
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## User-Testing First Round - Results

But as soon as **the results were in, the project got put on hold.**

### What Worked Well

- Alert graphic
- Red text near alerts
- Buttons were easily located
- Button copy was clear
- Pre-populated search parameters
- Understood which flight was affected
- Green checkmark confirmation icons

### General Observations

- Most users understood there was an alert regarding their itinerary
- Most took a great deal of time to read instructions
- Most wanted to immediately know status of flight

### Usability Issues

#### HIGH

- All expected actions to be closer to alerts
- All preferred not to scroll so far to see options
- Most wanted to immediately know status of flight
- All felt strongly that first class seats should be returned in search
- All had difficult location seat information
- Most expressed there was too much information on screen
- Most thought clicking “view Seats” would allow them to choose seats
- Most assumed they would choose a new first leg only
- Most did not notice bump from First Class to coach
- Many expected to be able to click alerts
- Many were initially confused & did not know what happened or what to do

#### MEDIUM/LOW

- One thought data was “out of order”, wanted layover info between flights info
- A few thought “going to” search bar should pre-populate with original airport
- Most felt did not need to view entire trip details on Find Alternate Flights page
- A few confused original flights with their options because too far away & bold
- Most did not know to scroll down page
- A few were confused by “Find Alternate Flights”, but might use it

### Looking Ahead >>

And even though we had to put the project down, **it was clear—the existing Itineraries application was not ideally laid out to support IROP functionality.**

## User-Testing Second Round - Scenario 1

Back on the job, in December 2008 we took a new look the itineraries page, gave it a makeover and tested two new IROP scenarios—this time with detailed comps.

### Scenario 1

#### DETAILS

Single pax  
 Logged In  
 Single, Auto Protection

#### FLOW

- (1) Logged in, reviews itineraries
- (2) Opens Trip Details
- (3) Reviews changes
- (4) Clicks “Find Alternate Flights”
- (5) Reviews/Selects new flight
- (6) Updated itinerary/confirmation
- (7) Online check-in (new flight)

#### EFFICIENCIES/CHANGES MADE

- Used color-coding for scenarios
- Reprioritized messaging & actions
- Separated out flight details tables
- Reorganized data in tables
- Utilized auto-search
- Removed verification screens
- Utilized collapsible tables/modules
- Moved critical info/tasks to top
- Bolded red text for data comparison (original vs. new flights/options)

#### RESULTS

- Hardly any critical issues identified

**Itineraries**

✓ There has been an unscheduled flight change affecting your trip to Seattle on December 18, 2008. But don't worry, we've automatically rebooked you on the flight(s) below.

- If you're happy with our selection(s), **Check In** for your new flight(s) now.
- You can also **view your new trip details** to look for alternate flights or standby options.

1 Itinerary displayed matching 3590039564

Confirmation #	Departs	Arrives	Flight Number	More Info and Options
3B9S2T	Boston, MA (BOS) 18 Dec 2008 8:00am	Seattle, WA (SEA) 18 Dec 2008 1:27pm	Delta 3650	View Your New Trip Details

Updated Flight(s): Boston, MA (BOS) to Seattle, WA (SEA) on 18 Dec 2008

Carrier Flight #	Departs	Arrives	Cabin & Class	Options
✓ Delta 3650 Reservation: Confirmed	Boston, MA (BOS) 18 Dec 2008 Scheduled: 8:00am Gate: C48	Minneapolis/St. Paul, MN (MSP) 18 Dec 2008 Scheduled: 10:28am Gate: B36	Coach (B)	Check In
✓ Delta 2819 Reservation: Confirmed	Minneapolis/St. Paul, MN (MSP) 18 Dec 2008 Scheduled: 11:45am Gate: B36	Seattle, WA (SEA) 18 Dec 2008 Scheduled: 1:27pm Gate: C24	Coach (B)	Not happy with the flight(s) we chose? Find Alternate Flights

You can also standby for one other flight at no extra cost. Add Standby Option

Return Flight(s): Seattle, WA (SEA) to Boston, MA (BOS) on 21 Dec 2008

Carrier Flight #	Departs	Arrives	Cabin & Class	Options
Delta 1288 Reservation: Confirmed	Seattle, WA (SEA) 21 Dec 2008 Scheduled: 7:00am Gate: C24	Cincinnati, OH (CVG) 21 Dec 2008 Scheduled: 2:15pm Gate: B11	Coach (B)	
Delta 6758 Reservation: Confirmed	Cincinnati, OH (CVG) 21 Dec 2008 Scheduled: 3:10pm Gate: B9	Boston, MA (BOS) 21 Dec 2008 Scheduled: 5:12pm Gate: A2	Coach (B)	

Price per passenger: \$358.00 (USD)  
 SkyMiles earned = 1522; MQM earned = 1522 (details)  
 Per passage

**Your Seating**

Return to top

**Find Alternate Flights**

You can choose one of the following alternate flights at no extra charge.

- We've only returned results that most closely match your confirmed flight(s).
- There may be flights available at different airports or different dates/times. You can **revise your search** below.
- If the departure or arrival airports, number of stops, layover cities, or seating classes are different from your confirmed flight(s), they are displayed in **red**.
- If you do not want to choose a new flight at this time, click **Back to Itineraries**.

Confirmed Flights: Boston, MA (BOS) to Seattle, WA (SEA) on 18 Dec 2008

Click the column headings to sort your results. Add Standby Option

Departs	Arrives	Stops	Travel Time	Flights & Cabin (Class)	Choose Flight
Thursday, December 18, 2008					
1- Stop					
6:30am BOS	12:22pm SEA	1-stop Salt Lake City (52 min layover)	8 hr 52 min	Delta 1261 Boeing 737-800 In-Flight Services Coach (B) View Seats	Select
8:00am BOS	1:27pm SEA	1-stop Minneapolis/St. Paul (1hr 23 min layover)	8 hr 27 min	Delta 3650 Boeing 737-800 In-Flight Services Coach (B) View Seats Delta 2819 Boeing 757-300 In-Flight Services Coach (B) View Seats	You are already confirmed on this flight.

Return to top

You will not be charged for this flight change. (View fare rules)

**Revise Your Search**

Leaving from: Boston, MA (BOS) | Going to: Seattle, WA (SEA) | Departure date: Dec 18 | Time: 5am | Search



## User-Testing Second Round - Scenario 2

Back on the job, in December 2008 **we took a new look the itineraries page, gave it a makeover and tested two new IROP scenarios—this time with detailed comps.**

### Scenario 2

#### DETAILS

Couple  
Not Logged In  
IROP Cancellation  
No Protection

#### FLOW

- (1) Reviews itineraries
- (2) Clicks “Find Alternate Flights”
- (3) Reviews/Selects new flight
- (4) Updated itinerary/confirmation

#### EFFICIENCIES/CHANGES MADE

- Used color-coding for scenarios
- Reprioritized messaging & actions
- Separated out flight details tables
- Reorganized data in tables
- Utilized auto-search
- Removed verification screens
- Utilized collapsible tables/modules
- Moved critical info/tasks to top
- Bolded red text for data comparison (original vs. new flights/options)

#### RESULTS

- Hardly any critical issues identified

**Trip Details** Confirmation Number: 5B3R8V

Can't check in? → View eTicket → Add to Calendar → Get Notifications → Email Itinerary → Print Itinerary

✓ Your itinerary has been updated with the new flight(s) you selected.

- If you're happy with your selection(s), **Check In** for your new flight(s) now.
- If not, you can still **Find Alternate Flights** at no extra cost.
- You can also add your name to the **standby list** for one other flight at no extra cost by clicking **Add Standby Option** below.

**Updated Flight(s): Boston, MA (BOS) to Miami, FL (MIA) on 18 Dec 2008**

Carrier Flight #	Departs	Arrives	Cabin & Class	Your Seating
✓ Delta 1853 Reservation: Confirmed	Boston, MA (BOS) 18 Dec 2008 Scheduled: 7:10am Gate: A20	Atlanta, GA (ATL) 18 Dec 2008 Scheduled: 10:12am Gate: T4	Coach (B)	<b>Check In</b>
✓ Delta 2819 Reservation: Confirmed	Atlanta, GA (ATL) 18 Dec 2008 Scheduled: 11:05am Gate: A17	Miami, FL (MIA) 18 Dec 2008 Scheduled: 1:02pm Gate: H11	Coach (B)	Not happy with your selection(s)? → Find Alternate Flights

You can also standby for one other flight at no extra cost.  
→ Add Standby Option

**Affected Flight(s): Boston, MA (BOS) to Miami, FL (MIA) on 18 Dec 2008**

Carrier Flight #	Departs	Arrives	Cabin & Class	Your Seating
Delta 1121 <b>Flight cancelled</b>	Boston, MA (BOS) 18 Dec 2008 Scheduled: 5:35am Gate: A14	Cincinnati, OH (CVG) 18 Dec 2008 Scheduled: 8:10am Gate: B18	Coach (B)	To search click <b>Find</b>
Delta 2819 Reservation: Confirmed	Cincinnati, OH 18 Dec 2008 Scheduled: 8:10am Gate: B19			

**Find Alternate Flights**

You can choose one of the following alternate flights at no extra charge.

- We've only returned results that most closely match your affected flight(s).
- There may be flights available at different airports or different dates/times. You can **revise your search** below.
- If the departure or arrival airports, number of stops, layover cities, or seating classes are different from your affected flight(s), they are displayed in **red**.

**Return Flight(s): Miami, FL**

Click the column headings to sort your results.

Departs	Arrives	Stops	Travel Time	Flights & Cabin (Class)	Choose Flight
← Previous Day Thursday, December 18, 2008 Next Day →					
1-Stop					
7:10am BOS	1:02pm MIA	1-stop Atlanta (1 hr 7 min layover)	5 hr 52 min	Delta 1853 Boeing 757 In-Flight Services Coach (B) View Seats	Select
7:30am BOS	12:03pm MIA	1-stop JFK (1 hr 44 min layover)	6 hr 33 min	Delta 6791 CRJ In-Flight Services Coach (B) View Seats	Select
				Delta 1823 MD-88 In-Flight Services Coach (B) View Seats	

↑ Return to top You will not be charged for this flight change. (View fare rules)

**Revise Your Search** - Close

Leaving from: Boston, MA (BOS) Going to: Miami, FL (MIA) Departure date: Dec 18 Time: 5am Search

**Return Flight(s): Miami, FL to Boston, MA (BOS) on 28 Dec 2008**

Departs	Arrives	Cabin & Class	Your Seating
Miami, FL (MIA) 28 Dec 2008 Scheduled: 10:05am Gate: H9	New York-Kennedy, NY (JFK) 28 Dec 2008 Scheduled: 12:58pm Gate: 5	Coach (B)	
New York-Kennedy, NY (JFK) 28 Dec 2008 Scheduled: 1:59pm Gate: 8	Boston, MA (BOS) 28 Dec 2008 Scheduled: 3:19pm Gate: A1	Coach (B)	

Price per passenger: \$358.00 (USD)  
SkyMiles earned = 1522; MQM earned = 1522 (details)  
Per passenger

## The New Itineraries Experience

Tweaking a few things and testing a few more scenarios with one final round in January 2009, **we delivered a brand-new, user-friendly Itinerary and IROP experience.**

- Deemed **highly-usable by test subjects & client**
- Developed & **utilized new GUI format**, in conjunction with annotated comps, **for quick turnaround of complex project** to developers
- **Exceeded client expectations** in both design & meeting deadlines
- **The new Itineraries experience** at delta.com:
  - Annotated Comps | [Itineraries > Find Alternate Flights/Add Standby>](#)
  - GUI Specs | [Itineraries > Find Alternate Flights/Add Standby>](#)

# APPENDIX

# Appendix | High-Level Itinerary Scenarios Comparison Cheat Sheet

		[A]	[B]	[1]	[2]	[3]	
<a href="#">Retrieve Itinerary &gt;</a>							
<b>Normal Itinerary</b> No Alert		<b>Non-IROP Delay</b> Medium Alert ➡		<b>No Protection PNR is Not Clean</b> High Alert <!>		<b>Multiple Protection PNR is Not Clean</b> High Alert <!>	
<b>Single Protection PNR is Clean</b> Confirmation ✓							
Itineraries Summary/Trip > Details		<a href="#">Check In &gt;</a> <a href="#">Cancel Itinerary &gt;</a> <a href="#">Change Flights &gt;</a>	<a href="#">Check In &gt;</a> <a href="#">Cancel Itinerary &gt;</a> <a href="#">Change Flights &gt;</a>	<a href="#">Check In &gt;</a> <a href="#">Cancel Itinerary &gt;</a> <a href="#">Change Flights &gt;</a> <a href="#">Find Alternate Flight &gt;</a>	<a href="#">Check In &gt;</a> <a href="#">Cancel Itinerary &gt;</a> <a href="#">Change Flights &gt;</a> <a href="#">Accept This Option &gt;</a> > Find Alternate Flights	<a href="#">Check In &gt;</a> <a href="#">Cancel Itinerary &gt;</a> <a href="#">Change Flights &gt;</a> > Find Alternate Flights > Add Standby Option	
	Flight Details > Table(s)	Your Next Flight(s): Standby Option: Confirmed Flight(s): Alternate Flight Options: Remaining Flight(s) [If RT or Multi-city]: Affected Flight(s):	Display   Open Do Not Display Do Not Display Display   Open Display   Open Do Not Display > Your Seating > Request Upgrade (Cond.)	Display   Open Do Not Display Do Not Display Display   Open Display   Open Do Not Display > Your Seating > Request Upgrade (Cond.)	Do Not Display Do Not Display Do Not Display Do Not Display Display   Closed (If Available) Display   Open > Your Seating > Request Upgrade (Cond.)	Do Not Display Do Not Display Do Not Display Display   Open Display   Closed (If Available) Display / Open > View Seating ( to LSM) > Request Upgrade (Cond.)	Do Not Display Display (If added)   Open Display   Open Do Not Display Display   Open Do Not Display > Your Seating > Request Upgrade (Cond.)
Your Seating > Module	On Default:	Open > Select/Change Seat > Add/Edit SSR	Open > Select/Change Seat > Add/Edit SSR	Closed > Select/Change Seat > Add/Edit SSR ORIGINAL/AFFECTED FLIGHT Misconnect/Cancelled Flight & Subsequent Flights > In Gray	Closed > Select/Change Seat > Add/Edit SSR ORIGINAL/AFFECTED FLIGHT Misconnect/Cancelled Flight & Subsequent Flights > In Gray	Open > Select/Change Seat > Add/Edit SSR NEW/CONFIRMED FLIGHT DATA for all segments	
<a href="#">Primary Task &gt;</a> <a href="#">Disabled/Unavailable Primary Task &gt;</a> > Secondary Task > Disabled Secondary Task			Seating Data for IROP'd Flight(s): <ul style="list-style-type: none"> <li>IROP'd Flight Data Available:</li> <li>IROP'd Flight Data NOT Available:</li> </ul>	ORIGINAL/AFFECTED FLIGHT Data Not available Message	ORIGINAL/AFFECTED FLIGHT Data Not available Message		
				*Scenario to be phased out in 2nd/3rd Quarter 2009			