

Improved Seat Reservation Functionality

Product Advisory Number: 575	Version: 1	Effective Date: 24JUL2008				
High Level Description	Seat assignment reserve processing will be improved, eliminating many of the continuation entries.					
Impact Summary	Activation for Worldspan users and NW, a Worldspan-hosted airline. Other Hosted carriers to follow at a later undetermined time.					
Reason For Issue	REMINDER. First notification was done in early 2008, prior to the Product Advisory process for Worldspan products.					
Customer Impact	N	Internal Only				
	Y	Subscribers				
	Y	Developers *				
	Y	Air Suppliers - only hosted airlines				
	N	Surface Suppliers				
System	N	Galileo	N	Apollo	Y	Worldspan
Product Area	Y	Host Function				
	Y	Desktop				
	N	Fares				
	Y	Web Services (API and Messaging) *				
	N	Galileo Fares Interface (ATO/CTO)				
	Y	Hosting – NW will be the first hosted airline. Other Hosted airlines will be activated at a later undetermined time.				
Load to Production	No earlier than 24JUL2008					
Load to Copy	Not Applicable					
* Additional Information						
Web Services (API and Messaging)						

OVERVIEW

Seat assignment reserve processing will be improved, making many of the continuation entries no longer applicable. Those continuation entries no longer applicable will be eliminated.

Note: existing functional entries will not be changed, nor are any new entries developed. However, some new error responses will apply.

CUSTOMER BENEFIT

Improved processing, leading to an easier to use process.

- Reserve Seat Maximum Increased from 7 to 99 – Applicable to Generic Reserve Seat Requests for all Airlines
- 4RS Specific Seat Request Requesting Multiple Seats for a Non-Seat Participant Airline Flight
- New Responses When All Seats Cannot be Reserved
- Any Seat Logic
- Reserve Seats on Change of Gauge (COG) and THRU Flights
- COG and THRU Processing When Seats Are Available on the Downline Leg
- SSRSEAT Item for Each Leg
- 4R@ Processing
- Different Reserve Seats on COG and Thru Flights for Multiple Passengers
- COG and THRU Processing When No Seats are Available on the Downline leg
- COG and THRU Processing When Only Select Seats Are Available on the Downline Leg

DETAIL AND CUSTOMER EXAMPLES

1. Reserve Seat Maximum Increased from 7 to 99 – Applicable to Generic Reserve Seat Requests for all Airlines

Current Seat Assignment processing allows a maximum 7 passengers to be reserved per seat request (entry). For generic reserved seat requests only, this CSR will allow a maximum of 99 passengers to be requested in one entry per flight. All seats must be able to be reserved per flight or none will be reserved for that flight, in which case an error response will be generated (see section 1.3).

NOTE: The maximum of 7 seats requested per entry per flight will remain in effect for specific seat requests and name select entries.

New Reserved Seat Response for Parties Greater Than Seven:

To alleviate a response requiring lengthy screen scrolling, the following new response will be generated for parties greater than seven (where NN is the number of passengers):

CONFIRM RSVD SEAT/NOT BRDG PASS/SEAT OK UP TO 30 MIN BEFORE FLT

ALL SEATS RESERVED FOR NN PASSENGERS

2. 4RS Specific Seat Request Requesting Multiple Seats for a Non-Seat Participant Airline Flight

Currently when multiple seats are requested with a 4RS entry with specific seats for a multi-name PNR on a non-seat participant airline flight, an internal entry is generated, and sent to that airline, including the multiple seats, but the airline cannot handle the format. Changes in new seat processing will correct this situation.

Current processing:

```
1.2LAUN/ELAINE/BRANDON*2ADT^  
1 TK 1Y 20FEB TU ISTJFK HK2 1120A 335P/O
```

4RS1\$15AB results in the following SSRs with the same seat numbers:

```
SSRNSSTTKNN1ISTJFK0001Y20FEB-LAUN/ELAINE.15A15B  
SSRNSSTTKNN1ISTJFK0001Y20FEB-LAUN/BRANDON.15A15B
```

When the airline receives this format, seat 15A will be assigned to passenger 1.1, Laun/Elaine, but the second NSST will come back as a UC as the airline will attempt to assign 15A to passenger 1.2, Laun/Brandon, as well.

New processing will still generate the same number of SSR NSSn requests; however, each SSR will only have one specific seat requested:

```
SSRNSSTTKNN1ISTJFK0001Y20FEB-LAUN/ELAINE.15A  
SSRNSSTTKNN1ISTJFK0001Y20FEB-LAUN/BRANDON.15B
```

All Remaining Sections Are Applicable to Reserving Seats on NWA and other Hosted Carriers in the Worldspan System Only

(These changes will not apply to 4RS or 4RA processing for OA flights, except 4R@ processing, section 4.5.1.2.b)

3. New Responses When All Seats Can Not be Reserved

New responses will be provided when all seats can not be reserved (regardless of number in party). A distinction will be made when NO eligible seats exists versus when NOT ENOUGH eligible seats exist. Different text will be used when applicable.

For **4RS**, two new errors will be provided.

If no eligible seats exist:

UNABLE TO ASSIGN SEATS - NO ELIGIBLE SEATS

If not enough eligible seats exist:

UNABLE TO ASSIGN SEATS - NOT SUFFICIENT ELIGIBLE SEATS

For 4RA, two new errors will be provided.

If no eligible seats exist for segments 01 and 03:

UNABLE TO ASSIGN SEGS 01/03 - NO ELIGIBLE SEATS

If not enough eligible seats exist for segments 01 and 03:

UNABLE TO ASSIGN SEGS 01/03 - NOT SUFFICIENT ELIGIBLE SEATS

For multiple segments where one segment might have NO eligible seats and another segment might have NOT SUFFICIENT eligible seats, the current existing error message will be returned (also applicable to a mixture of host and OA segments):

UNABLE TO ASSIGN SEGS 01/03

4. "Any Seat" Logic

New processing will include a feature called "any seat" logic when reserving seats, i.e. an attempt will be made to reserve the requested seats when possible, but the ultimate goal is to reserve a seat ("any seat", if the passenger qualifies for the seat) rather than display a seat map. This logic will, therefore, eliminate seat map displays and continuation entries in most cases.

When specific reserve seats are requested, the reservation hierarchy will be as follows:

1. Specific requested seat
2. Generic equivalent of the specific requested seat
3. Any seat (using the existing seat assignment algorithm applicable for that flight)

When generic reserve seats are requested, the reservation hierarchy will be as follows:

1. Seat that meets the generic request
2. Any seat (using the existing seat assignment algorithm applicable for that flight)

5. Reserve Seats on Change of Gauge (COG) and THRU Flights

New processing will attempt to reserve seats on all legs for both COG and THRU flights, even if a different seat is required on each leg. This will be applicable to all COG/THRU legs.

Current Seat Assignment processing allows this on COG flights only. New processing will also allow this on THRU flights.

4R@ entries will be allowed to change a seat on the a downline THRU leg (just as current processing allows this on downline COG legs) : >4R@2\$15A (where 2 is the SSRSEAT item number).

No initial entry exists, nor will one be provided, to select a different seat on the downline leg. As mentioned above, the downline seat can be changed with the 4R@ entry *after* the initial seat reservation.

The following sections outline COG and THRU flight processing for when **1)** seats **are** available on the downline leg and **2)** when **no** seats are available on the downline leg and **3)** when **only select seats** are available.

5.1. COG and THRU Processing When Seats Are Available on the Downline Leg

5.1.1. COG Flights

Current 4RS and 4RA processing automatically reserves seats, even if seats on the downline leg are different than the seats on upline leg. There will be no change to this processing.

5.1.2. THRU Flights

Current 4RS and 4RA processing reserve seats only if seats on the downline leg are same as seats on upline leg. If the same seat is not available on the downline leg, the seat map is displayed for the downline leg.

4RS and 4RA processing will be improved, to reserve seats, even if seats on downline leg are different than seats on upline leg.

When a different seat is reserved with the 4RS entry on the downline leg, the response will be:

CHG STS XXX

Where "XXX" is the board point of the downline leg.

Example:

CHG STS NRT

When a different seat is reserved with the 4RA entry on the downline leg, the current response will be issued:

ALL SEATS RESERVED

5.1.3. SSRSEAT Item for Each Leg

4RS and 4RA processing will be enhanced to create an SSRSEAT item for each leg, even if the seat is the same on each leg.

Current processing displays an "RS" status for all legs on seat fax displays. New processing will display an "RS" status on the first leg only; subsequent downline leg SSRSEAT items will be "**RC**" status even if the seat is the same on each leg.

Examples -

THRU flight with an SSRSEAT item for each leg, **same** seat:

```
1P- OLOPJY
1.1LAUN/ELAINE*ADT
 1 NW 804Y 21SEP FR OGMSP SS1 725P 1218P|1/O E
P- 1.91PNONE
T- 1.T/
TKG FAX-NOT PRICED FARE TYPE EX
**** ITEMS SUPPRESSED ****/S

>*SG

G- 1.SSRSEATNWHK1LOGGKOA0804Y21SEP RS 20-F LAUN/ELAINE
 2.SSRSEATNWHK1KOASEA0804Y21SEP RC 20-F LAUN/ELAINE
 3.SSRSEATNWHK1SEAMSP0804Y22SEP RC 20-F LAUN/ELAINE
```

>*S

GFAX	FLIGHT/CLASS	DATE	ORIG/DEST	STATUS	SEAT	SEG/STATUS
------	--------------	------	-----------	--------	------	------------

```

                LAUN/ELAINE          N 1.1
1  NW  804  Y    21SEP  OGGKOA  HK RS  20-F  1  HK
2                21SEP  KOASEA  HK  RC  20-F  1  HK
3                22SEP  SEAMSP  HK  RC  20-F  1  HK
    
```

THRU flight with an SSRSEAT item for each leg, **different** seats:

```

NW- 4LOQAX
  1.1 TESTING/AAAMR*ADT
  1 NW 804Y 21SEP FR OGGMSP HK1 725P 1218P|1/O 50 E
P- 1.DAPNONE
T- 1.T/
TKG FAX-NOT PRICED FARE TYPE EX
*** FQM ITEMS EXIST ***
FOP- 1.CK
**** ITEMS SUPPRESSED ****/S
    
```

>*SG

```

G- 1.SSRSEATNWHK1OGGKOA0804Y21SEP RS 21-A TESTING/AAAMR
   2.SSRSEATNWHK1KOASEA0804Y21SEP  RC 39-A TESTING/AAAMR
   3.SSRSEATNWHK1SEAMSP0804Y22SEP  RC 25-A TESTING/AAAMR
    
```

>*S

```

GFAQ FLIGHT/CLASS  DATE  ORIG/DEST  STATUS  SEAT  SEG/STATUS
                TESTING/AAAMR          N 1.1
1  NW  804  Y    21SEP  OGGKOA  HK RS  21-A  1  HK
2                21SEP  KOASEA  HK  RC  39-A  1  HK
3                22SEP  SEAMSP  HK  RC  25-A  1  HK
    
```

5.1.4. 4R@ Processing

Current limitation today – the 4R@GFAQitem# entry, to cancel a seat, only cancels the seat for that SSRSEAT item leg and does not cancel all THRU SSRSEATS. (Note: 4RX entry does cancel seats on all downline legs and can be used in place of 4R@GFAQitem# entry.) 4R@ processing will be enhanced to cancel all legs.

Current 4R@ processing, Host flights:

4R@ to new seat allowed on any leg for THRU or COG flight.

4R@ to delete allowed on any leg of THRU or COG -- only cancels input SSR item number.

Current 4R@ processing OA flights:

4R@ to new seat allowed only on first leg of THRU or COG --subsequent legs receive 'CK ITEM'.

4R@ to delete allowed on any leg of thru/cog -- only cancels input SSR number.

Enhanced 4R@ processing enhancement under this CSR, Host flights:

4R@ to new seat allowed on any leg for THRU or COG flight.

4R@ to delete allowed on any leg for THRU or COG - will cancel seats for all legs of the flight for the referenced passenger.

Enhanced 4R@ processing enhancement under this CSR, Host, OA flights:

4R@ to new seat allowed on any leg for THRU or COG flight.

4R@ to delete allowed on all legs for THRU or COG - will cancel seats for all legs of the flight for the referenced passenger.

In the above PNR examples in section 4.5.1.2.a, a 4R@ delete entry for any of the SSRSEAT items (4R@1, 4R@2 or 4R@3) will cancel all SSRSEAT items for flight 804. A 4R@ to new seat entry (4R@1\$15A) in PNR OLOPJY will change seat 20F on the first leg of the flight to 15A. No change will be made to the seat assignment for the other legs of the flight.

5.1.5. Different Reserve Seats on COG and Thru Flights for Multiple Passengers

To alleviate a response requiring lengthy screen scrolling – where on a COG or THRU flight some passengers get the same seat on both legs, but others get a different seat on each leg – the following new response will be generated (where NN is the number of passengers):

```
CONFIRM RSVD SEAT/NOT BRDG PASS/SEAT OK UP TO 30 MIN BEFORE FLT  
ALL SEATS RESERVED FOR NN PASSENGERS
```

5.2. COG and THRU Processing When No Seats are Available on the Downline leg

Current 4RS processing displays the seat map for the downline leg, even though no seats are available to reserve. Current 4RA processing issues an error message. In both cases, since upline seats were reserved, an entry must then be made to cancel the upline seats.

4RS and 4RA processing will be improved to not reserve seats on the upline leg when seats cannot be reserved for all passengers on the down line leg. One of the following error messages will be issued instead:

If no eligible seats exist for segment 02:

```
UNABLE TO ASSIGN SEGS 02 - NO ELIGIBLE SEATS
```

If not enough eligible seats exist for segment 02:

```
UNABLE TO ASSIGN SEGS 02 - NOT SUFFICIENT ELIGIBLE SEATS
```

5.3. COG and THRU Processing When Only Select Seats Are Available on the Downline Leg

Note: current qualification restrictions apply, that is the passenger must qualify for the seat.

Current 4RS processing displays a seat map for downline leg when only select seats remain, the passenger does not qualify, and the entry is made **outside the 6-hour exception**. When a continuation entry is made for a select seat, the seat map is redisplayed.

Current 4RA processing issues an error message when the passenger does not qualify:

UNABLE TO ASSIGN SEGS 01

In both cases, since upline seats were reserved, an entry must then be made to cancel the upline seats.

However, if the 4RS entry is **inside 6-hour exception** the seat map will be displayed for the downline leg when only select seats remain **and the passenger does not qualify but when a continuation entry is made for a select seat, the entry is accepted**

4RS and 4RA processing will be improved as follows:

4RS will no longer display a seat map when only Select Seats are available on the downline leg. If the passenger is not eligible for any available reserve seat on the downline leg the following error will be issued:

UNABLE TO ASSIGN SEGS 02 - NO ELIGIBLE SEATS

The upline leg will not be reserved. This is an improvement; the user is no longer forced to cancel out the upline leg.

If the passenger is eligible for an available reserve seat on the downline leg, the seat will be reserved. This is an improvement as the seat map display followed by a continuation entry is no longer necessary.

4RA will be improved; when passengers are not eligible for any available reserve seat on the downline leg, an error will be issued:

UNABLE TO ASSIGN SEGS 02 - NO ELIGIBLE SEATS

The upline leg will not be reserved. This is an improvement; the user is no longer forced to cancel out the upline leg.

Also, 4RA will no longer display an error message when passengers ARE eligible for an available reserve seat on the downline leg; instead, the seat will be reserved.

6. Change to Seat Display (SFAX)

Current seat assignment processing displays SSRSEAT items in the SFAX display for each passenger on the first flight segment, followed by the seats for each passenger for the second flight segment, etc.

With new seat assignment processing done under this project, all the seats for all segments are listed for first passenger, followed by all the seats for all segments for the second passenger, etc. If there is more than one leg for a specific flight segment, all the seat assignments for that segment are listed together.

Example Current Processing:

```
1P- LUUESI
90 NAMES REMAIN AVAILABLE
 1.C/99LARGEGROUP*ADT  2.1ADAMS/MARYANNE.MRS*ADT
3.2ADAMS/MARYANNE.MRS/BILLY.MR*2ADT
 4.2BARTON/ANNA/MICHAEL*2ADT  5.2MARTIN/GENE.MR/KAY.MRS*2ADT
6.2MILLER/MARK/MICHAEL*2ADT  1*CO5593Y 04AUG MO MCIIAH HK99 1230P 235P/O P *S E
 2 CO1566Y 04AUG MO IAHSFO HK99 320P 524P/O P *S E
P- 1.NOT 816-891-1234/WORLDSPAN TRAVEL/
```

Current seat assignment processing (old path) displays (*SGA) SSRSEAT items ordered/grouped by flight. That is, all SSRSEAT items are displayed for all passengers for the first flight in the itinerary, in successive name order followed by all SSRSEAT items for all passengers, in successive name order, for the next flight in the itinerary (row spacing is for clarity):

>*SGA

```
G- 1.SSRSEATCONN1MCIIAH5593Y04AUG RS NA ADAMS/MILLIE MRS
    2.SSRSEATCONN1MCIIAH5593Y04AUG RS NA ADAMS/MARYANNE MRS
    3.SSRSEATCONN1MCIIAH5593Y04AUG RS NA ADAMS/BILLY MR
    4.SSRSEATCONN1MCIIAH5593Y04AUG RS NA BARTON/ANNA
    5.SSRSEATCONN1MCIIAH5593Y04AUG RS NA BARTON/MICHAEL
    6.SSRSEATCONN1MCIIAH5593Y04AUG RS NA MARTIN/GENE MR
    7.SSRSEATCONN1MCIIAH5593Y04AUG RS NA MARTIN/KAY MRS
    8.SSRSEATCONN1MCIIAH5593Y04AUG RS NA MILLER/MARK
    9.SSRSEATCONN1MCIIAH5593Y04AUG RS NA MILLER/MICHAEL

    10.SSRSEATCONN1IAHSFO1566Y04AUG RS NA ADAMS/MILLIE MRS
    11.SSRSEATCONN1IAHSFO1566Y04AUG RS NA ADAMS/MARYANNE MRS
    12.SSRSEATCONN1IAHSFO1566Y04AUG RS NA ADAMS/BILLY MR
    13.SSRSEATCONN1IAHSFO1566Y04AUG RS NA BARTON/ANNA
    14.SSRSEATCONN1IAHSFO1566Y04AUG RS NA BARTON/MICHAEL
    15.SSRSEATCONN1IAHSFO1566Y04AUG RS NA MARTIN/GENE MR
    16.SSRSEATCONN1IAHSFO1566Y04AUG RS NA MARTIN/KAY MRS
    17.SSRSEATCONN1IAHSFO1566Y04AUG RS NA MILLER/MARK
    18.SSRSEATCONN1IAHSFO1566Y04AUG RS NA MILLER/MICHAEL
```

Example New Processing:

```
1P- LUUESI
90 NAMES REMAIN AVAILABLE
  1.C/99LARGEGROUP*ADT  2.1ADAMS/MARYANNE.MRS*ADT
  3.2ADAMS/MARYANNE.MRS/BILLY.MR*2ADT
  4.2BARTON/ANNA/MICHAEL*2ADT  5.2MARTIN/GENE.MR/KAY.MRS*2ADT
  6.2MILLER/MARK/MICHAEL*2ADT  1*CO5593Y 04AUG MO MCIIAH HK99 1230P 235P/O P *S E
  2 CO1566Y 04AUG MO IAHSFO HK99 320P 524P/O P *S E
P- 1.NOT 816-891-1234/WORLDSPAN TRAVEL/
```

Enhancements to seat assignment processing (new path) done under this project will change the order/grouping of SSRSEAT items in the seat display (*SGA). SSRSEAT items will be grouped by passenger. That is, SSRSEAT items for each passenger are displayed for all flights one after the other, in successive flight order, grouped in successive passenger order (row spacing is for clarity):

```
>*SGA
G- 1.SSRSEATCONN1MCIIAH5593Y04AUG RS NA ADAMS/MILLIE MRS
    2.SSRSEATCONN1IAHSFO1566Y04AUG RS NA ADAMS/MILLIE MRS

    3.SSRSEATCONN1MCIIAH5593Y04AUG RS NA ADAMS/MARYANNE MRS
    4.SSRSEATCONN1IAHSFO1566Y04AUG RS NA ADAMS/MARYANNE MRS

    5.SSRSEATCONN1MCIIAH5593Y04AUG RS NA ADAMS/BILLY MR
    6.SSRSEATCONN1IAHSFO1566Y04AUG RS NA ADAMS/BILLY MR

    7.SSRSEATCONN1MCIIAH5593Y04AUG RS NA BARTON/ANNA
    8.SSRSEATCONN1IAHSFO1566Y04AUG RS NA BARTON/ANNA

    9.SSRSEATCONN1MCIIAH5593Y04AUG RS NA BARTON/MICHAEL
   10.SSRSEATCONN1IAHSFO1566Y04AUG RS NA BARTON/MICHAEL

   11.SSRSEATCONN1MCIIAH5593Y04AUG RS NA MARTIN/GENE MR
   12.SSRSEATCONN1IAHSFO1566Y04AUG RS NA MARTIN/GENE MR

   13.SSRSEATCONN1MCIIAH5593Y04AUG RS NA MARTIN/KAY MRS
   14.SSRSEATCONN1IAHSFO1566Y04AUG RS NA MARTIN/KAY MRS

   15.SSRSEATCONN1MCIIAH5593Y04AUG RS NA MILLER/MARK
   16.SSRSEATCONN1IAHSFO1566Y04AUG RS NA MILLER/MARK

   17.SSRSEATCONN1MCIIAH5593Y04AUG RS NA MILLER/MICHAEL
   18.SSRSEATCONN1IAHSFO1566Y04AUG RS NA MILLER/MICHAEL
```

INTERNAL ONLY INFORMATION

GLOSSARY

Term	Definition
4RS and 4RA	Worldspan entries to request seat assignments seats in 1P

COG Flight	Change of Gauge – a flight having two or more legs where a change of aircraft equipment occurs at a mid point without a change in flight number.
THRU Flight	A flight which may make an intermediate stop or stops before reaching its final destination but requires no change of aircraft
Generic Seat Request	A reserve seat request entry requesting a generic seat. Examples: 4RA 4RS1 4RS1\$FSW
Specific Seat Request	A reserve seat request entry requesting a specific seat. Examples: 4RS1\$15A15B 4RA\$15A15B
Non-Seat Participant Airline	Airlines which do not participate in an interline seat agreement with Worldspan.

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