Summary of Change

Chapter 8

- 8.1 General–Note on building point to point itineraries–Added
- 8.2 Connection-Building Filter [Effective 01 November 2022]–Added
- 8.3 to 8.11 headers–Renumbered
- 8.4.6 Submission of Record Type 3 for Connection-Building Filter Partner List does not require a bilateral agreement. [Effective 01 November 2022]–Added
- 8.9.2 Airline Partners–Record Type 3 (Optional) [Effective 01 November 2022]–Added

  Trailer Record–Record Type 4 (Mandatory) [Effective 01 November 2022]–Added

- 8.9.3.3 Trailer Record–Type 3–Becomes record Type 4 as of 01 November 2022–Added

  Airlines Partners–Record Type 3 [Effective 01 November 2022]–Added
- 8.9.3.4 Trailer Record–Record Type 4 (Mandatory) [Effective 01 November 2022]–Added
- 8.10.3 Hierarchy rules:–Clarification on how to use record type 3 to supply Connection-Building Filter partner list [Effective 01 November 2022]
- 8.13 Connection-Building Filter Submission Template [Effective 01 November 2022]–Added
- 8.12 header–Renumbered to 8.14
- 8.14–Note added for Current transmission format valid until 31 October 2022

  New transmission format [Effective 01 November 2022]–Added

CHAPTER 8–PRESENTATION, APPLICATION, AND TRANSFER OF MINIMUM CONNECTING TIME (MCT) DATA

8.1 General

This Chapter describes the rules for submission and application of MCT for processing. In order to facilitate industry-wide implementation, a range of optional features, such as the use of suppressions, codeshare indicators and other optional MCT data elements, etc. have been included.

☐ The application of MCT and/or the Connection-Building Filter does not restrict the ability for an agent to manually create point to point itineraries.

Bilateral MCT agreements and online connecting time intervals established by a carrier are known as “MCT exceptions.” In this Chapter, station standard MCTs as well as MCT exceptions will be known as MCTs.

The administration of MCTs is governed by IATA PSC Resolution 765 and as required, MCTs must be observed by all ticketing and reservations outlets and are used by automated reservations systems. It is therefore of the utmost importance to ensure MCTs are correctly established, updated and uniformly quoted and used at all times. In a passenger context, MCT is defined as the shortest time interval required in order to transfer a passenger and his luggage from one flight to a connecting flight, in a specific location.

In a cargo context, the MCT can be defined as the shortest time interval required in order to transfer cargo shipment from one flight to a connecting flight.

The responsibility for maintaining SSIM Chapter 8 is mandated to the Minimum Connecting Times Group (MCTG). This group is established by the Plan Standards Board (PSB) that reports to the IATA Passenger Standards Conference (PSC).

Terms of Reference for the MCTG is available at www.iata.org/psc-plan.

To view and/or participate in the activities under this group, please access the https://standards.iata.org.

For further explanation to SSIM Chapter 8 please access the MCT Technical & User Guides located within the Plan Standards Board site (www.iata.org/psc-plan).

Any new business requirements and proposed amendments concerning this Chapter are to be addressed to SSIM@iata.org using the Agenda Change Request Template located within the Plan Standards Board site (www.iata.org/psc-plan), for consideration by the next meeting of the MCTG.

□ 8.2 Connection-Building Filter [Effective 01 November 2022]

The Connection-Building Filter may be used to restrict itinerary building between carriers who do not want to build connections.

The Connection-Building Filter will exist in the MCT text file as a Record Type 3.

1. Each airline can–but will not be required to–publish a list of partners with which it maintains interline agreements.
2. Online connections for the carrier submitting the Connection-Building Filter will always be allowed.
3. If both the arriving carrier and the departing carrier have filed the Connection-Building Filter partnership list, and either one of them omitted the other, the connection cannot be built.
4. If an airline doesn't wish to maintain a Connection-Building Filter list, the system assumption is to allow connections with all other airlines.
5. If a carrier provides a list of partner carriers in Record Type 3, only those connections involving the partner carriers on the list will be considered for connection build if the connection passes all other MCT checks. This applies to both marketing and/or operating carrier identified in the DEI50.

Here is an example:

3 Connection-Building Filter partnership lists filed:

- filed by AA: permitted with BA, LH
- filed by BA: permitted with AA and VY
- filed by LH: permitted with UA

Allow connections for MCT validation:

- All online connections
- AA–BA and BA–AA: both carriers file partnership lists and allow each other
- LH–UA and UA–LH: LH allows UA, and UA doesn't file and therefore allows everyone
- BA–VY and VY–BA: BA allows VY, and VY doesn't file and therefore allows everyone
- All connections between airlines which don't file partnership lists and therefore allow everyone

Connections which will not build:

- AA–LH and LH–AA: both carriers file partnership lists, and while AA allows LH, LH does not allow AA
- BA–LH and LH–BA: both carriers file partnership lists, and neither allows the other one
- AA–VY: VY is not included in AA's list
- BA*AA–VY Even though BA and VY will connect, AA and VY will not and so the connection is invalid (Must look at both marketing and operating carriers)
- AA*BA–VY*BA Even though the operating connection is BA–BA, the marketing carriers do not (AA does not have VY in its list)

8.3 Establishing MCTs

8.3.1 MCTs can be lower or higher than the station standard MCT.

8.3.2 An MCT can also suppress (block) a connection from being made at the stated connect point for the specified status combination.

8.3.3 MCTs can also be established according to factors such as inter-terminal, inter-station, trans border, regions, countries, specific flight number (ranges), aircraft types, etc.

8.4 Practice for the Submission of MCTs

8.4.1 Carriers file MCTs with data aggregators for the distribution of MCTs to other channels.

8.4.2 Carriers should bilaterally agree to an MCT prior to advising the data aggregators.

8.4.3 The notification by one party requires the concurrence of the receiving carrier.

8.4.4 No approval by the receiving carrier is required when:

- The change being made is administrative in nature (e.g., reassignment of flight numbers, whether operating or marketing),
- The MCT is a suppression (except in the case where a suppression for a specific receiving carrier is being removed).

8.4.5 When the carrier sending in the proposed MCT is the receiving carrier, the MCT will be added to the data aggregator's database without seeking further concurrence.

☐ 8.4.6 Submission of Record Type 3 for Connection-Building Filter Partner List does not require a bilateral agreement. [Effective 01 November 2022]

8.5 Principles for the Transmission of MCT Data

8.5.1 Data transfer takes place on a bilateral basis.

8.5.2 Whenever new data is received, the information contained supersedes previously received data.

8.6 MCT Data Elements Hierarchy Table

This table defines the priority order in which MCT data must be applied in building connections. For more detailed information on each Data Element below, please refer to section 8.8 MCT Data Elements Glossary.

The priority order is listed from the most applicable to the least applicable in ascending order, irrespective of the number of data elements. For example, priority 11 (Departure Terminal) will take precedence over priority 12 (Arrival Terminal). When the priority between two MCT records is determined by the hierarchy, the most applicable column that contains data for exactly one record is used. The record with the non-empty column takes priority over the one with the empty column.

Priority	Data Element	Comment
#	International/Domestic Status	
1	Departure Codeshare Indicator	If Y, either the Departure Carrier, or the Departure Codeshare Operating Carrier, or both must be specified.
2	Departure Carrier	Must be populated if the Departure Codeshare Operating Carrier is blank ***and*** both Arrival Codeshare Operating and Arrival Carrier are blank.
3	Departure Codeshare Operating Carrier	Must be populated if the Departure Carrier is blank ***and*** both Arrival Codeshare Operating and Arrival Carrier are blank.
4	Arrival Codeshare Indicator	If Y, either the Arrival Carrier, or the Arrival Codeshare Operating Carrier, or both must be specified.
5	Arrival Carrier	Must be populated if the Arrival Codeshare Operating Carrier is blank ***and*** both Departure Codeshare Operating and Departure Carrier are blank.
6	Arrival Codeshare Operating Carrier	Must be populated if the Arrival Carrier is blank ***and*** both Departure Codeshare Operating and Departure Carrier are blank.
7	Departure Flight Number Range Start	Is Mandatory if Departure Flight Number Range End is used. Subset flight ranges take priority over larger range (See section 8.10.3).
8	Departure Flight Number Range End	Is Mandatory if Departure Flight Number Range Start is used. Subset flight ranges take priority over larger range.
9	Arrival Flight Number Range Start	Is Mandatory if Arrival Flight Number Range End is used. Subset flight ranges take priority over larger range (See section 8.10.3).
10	Arrival Flight Number Range End	Is Mandatory if Arrival Flight Number Range Start is used. Subset flight ranges take priority over larger range.
11	Departure Terminal	
12	Arrival Terminal	
13	Next Station	
14	Previous Station	
15	Next State	Next Country code must be present
16	Previous State	Previous Country code must be present
17	Next Country	
18	Previous Country	
19	Next Region	Cannot be used in conjunction with Next Country, Next State, or Next Station.
20	Previous Region	Cannot be used in conjunction with Previous Country, Previous State, or Previous Station.
21	Departure Aircraft Type	
22	Arrival Aircraft Type	
23	Departure Aircraft Body	W = Wide bodied aircraft, N = Narrow bodied aircraft
24	Arrival Aircraft Body	W = Wide bodied aircraft, N = Narrow bodied aircraft

Priority	Data Element	Comment
25	Effective From date (Local)	(DDMMMYY or blank)
26	Effective To date (Local)	(DDMMMYY or blank)
27	Departure Station	Blank is only valid when used with a geographical. (global) suppression
28	Arrival Station	Blank is only valid when used with a geographical. (global) suppression
#	Suppression Indicator	Default Value is N
29	Suppression State	Suppression Country must also be populated.
30	Suppression Country	
31	Suppression Region	
#	Time	(hhmm) Interval time expressed in hours and minutes
#	Filing Date (Local)	Populated by the data aggregators–informational only
#	Submitting Carrier Identifier	Populated by the data aggregators
#	Action Indicator	
# Indicates data fields are not part of the hierarchy.		

8.7 MCT Data Elements Glossary Introduction

Each glossary entry is comprised of one or more of the following components:

- **A Data Element** Table that includes:
  - The Data Element Name
  - The Data Element Description
  - The Application, Format, and Example for the SSIM Chapter

e.g.

[Data Element Name] ARRIVAL STATION

[Data Element Description] Arrival station where the connection will occur		
Application	**Format**	**Example**
Chapter 8	(aaa)	ORD

- **Default**

  Defines any specific defaults for the data element
- **Format**

  Specifies the format of the data element
- **Use**

  Defines the general use of the data element (if additional to the Description)
- **Values**

  Lists the permitted values for the element or references where the values may be found
- **Notes**

  Explanatory notes on the use and application of the data element
- **Examples**

  Specific cases for the data element to further explain its usage. For clarity in understanding the examples, all data fields are not shown in all examples and the order of the data is not necessarily in hierarchy or display order.

8.8 MCT Data Elements Glossary

ACTION INDICATOR

Indication of the type of request for the MCT.		
Application	**Format**	**Example**
Chapter 8	a	A

Use

This element is used to identify how to process the MCT data.

Values

Code	Description
A	Add
D	Delete
⌀	Will be blank if full file

Note: *A change to an MCT is accomplished by deleting the existing record (Action Indicator "D") and replacing it with an added record (Action Indicator "A").*

ARRIVAL AIRCRAFT BODY

Identification of the aircraft type (narrow body or wide body)		
Application	**Format**	**Example**
Chapter 8	(a)	N

→ For further guidance, refer to Appendix A: IATA Aircraft Types

Use

Enables an MCT to be filed by either narrow body or wide body.

Values

Code	Description
W	Wide body
N	Narrow body

ARRIVAL AIRCRAFT TYPE

Identification of the aircraft type at an Arrival Station.		
Application	**Format**	**Example**
Chapter 8	(xxx)	76W

Use

Enables an MCT to be filed by specific manufacturer and Aircraft Type.

The IATA standard 3 character code that normally covers the manufacturer and main model of the commercial aircraft.

Values

Refer to Appendix A: IATA Aircraft Types.

ARRIVAL CARRIER

The 2-letter Airline Designator of the delivering carrier at a specified Arrival Station. This Airline Designator will also be used for the ticket and be displayed on the electronic flight/value coupons.		
Application	**Format**	**Example**
Chapter 8	(xx)	9B

Use

To specify the carrier of the MCT.

Please refer to 8.10 Application to see how this field is used.

Values

Refer to the IATA Airline Coding Directory to obtain Airline Designator.

ARRIVAL CODESHARE INDICATOR

An indicator to advise the MCT applies to codeshare flights where a DEI 50 is published.		
Application	**Format**	**Example**
Chapter 8	(a)	Y

Use

When the "Y" is present, the MCT applies specifically to codeshare flights. Codeshare is determined by the presence of a DEI 50 on the flight schedule.

When there is no "Y" present, the MCT does not apply to codeshare flights

Please refer to 8.10 Application to see how this field is used.

Values

Code	Description
Y	Yes

Note 1: *If there is a "Y" in the indicator field, systems will reference the carrier's DEI 50 for application of an MCT. If a DEI 50 is not found, then the flight will be assumed to be the operating carrier.*

Note 2: *An MCT without the "Y" will be treated as operating.*

Note 3: *A marketing (Y) flight MCT will override an operating MCT.*

Note 4: *A marketing (Y) flight MCT is not necessary unless the marketing Carrier wants a longer MCT than the Codeshare Operating Carrier.*

Example:

Passenger wants to fly LHR-MIA-DFW. The following flights are available:

BA0207	LHR-MIA	1040	1500
AA6160	LHR-MIA	1040	1500 (DEI 50 = BA0207)
AA2718	MIA-DFW	1635	1857
AA2720	MIA-DFW	1700	1925

The following MCTs are present:

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	
MIA	MIA	ID	0140	AA	Y	BA	AA			MCT 1
MIA	MIA	ID	0130	BA			AA			MCT 2

In MCT 1, AA (as the Marketing Carrier) has chosen to file a longer MCT than BA (the Operating Carrier).

Itineraries will build as follows:

BA207 connects to AA2718 and AA2720 with MCT 2

AA6160 connects to AA2720 with MCT 1

AA6160 will not connect to AA2718

ARRIVAL CODESHARE OPERATING CARRIER

The 2-letter Airline Designator for the operating carrier at an Arrival Station.		
Application	**Format**	**Example**
Chapter 8	(xx)	KL

Use

To specify the operating carrier of the MCT.

Please refer to 8.10 Application to see how this field is used.

This field is only valid when Arrival Codeshare Indicator is “Y”.

Values

Refer to the IATA Airline Coding Directory to obtain Airline Designator.

Note 1: *If an Arrival Codeshare Operating Carrier is not defined and there is a “Y” in the Arrival Codeshare Indicator, then use this MCT for all codeshare flights for the Arrival Carrier.*

Note 2: *If an Arrival Codeshare Operating Carrier is not defined and the Arrival Codeshare Indicator is blank, then the Arrival Carrier will be used to apply the MCT.*

Note 3: *If an Arrival Codeshare Operating Carrier is defined, the Arrival Carrier is blank and the Arrival Codeshare Indicator has a “Y”, then all flights with a DEI 50 referring to the Arrival Codeshare Operating Carrier will build connections based upon the Arrival Codeshare Operating Carrier MCT.*

Example 1:

In LHR, AA requires a longer codeshare MCT than the two operating carrier MCTs. All AA arriving flights with a DEI 50 referring to BA and/or IB, will build at 2:00 for II connections.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	
LHR	LHR	II	0200	AA	Y		AA			MCT 1
LHR	LHR	II	0145	BA			AA			MCT 2
LHR	LHR	II	0145	IB			AA			MCT 3

Example 2:

In LHR, All arrival flights with a DEI 50 referring to an AA flight number, will build at a 01:45 connection.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	
LHR	LHR	II	0145		Y	AA	AA			MCT 1
LHR	LHR	II	0200	BA			AA			MCT 2

** If the arriving flight is IB 4193 (DEI 50 = AA 0407), it will build at 01:45 with MCT 1.*

** If the arriving flight is BA 1532 (DEI 50 = AA 0407), it will build at 01:45 with MCT 1.*

** If the arriving flight is BA 0372 (no AA DEI 50 filed), it will build at 02:00 with MCT 2.*

ARRIVAL FLIGHT NUMBER RANGE END

The ending number of a flight number range for arriving flights.		
Application	**Format**	**Example**
Chapter 8	(nnnn)	3758

Use

To specify a specific flight or flight range for the arrival carrier.

When an MCT is filed for one specific flight, then both the Arrival Flight Number Range Start and the Arrival Flight Number Range End will be the same.

Note: *In order to facilitate information exchange, the following rules shall be applied and considered when using flight ranges.*

(a) Flight numbers must be 4 digits–include leading zeros.

(b) Either an Arrival Carrier or an Arrival Codeshare Operating Carrier must be specified when using these fields.

(c) If both the Arrival Carrier and the Arrival Codeshare Operating Carrier are defined, then the flight number will be applied to the Arrival Carrier.

(d) If the Arrival Carrier is not defined, then the flight number will be applied to the Arrival Codeshare Operating Carrier.

(e) If the Arrival Flight Number Range Start is used, then the Arrival Flight Number Range End must also be used and vice versa.

Example

KL (DEI 50 operated by KQ) files an II MCT of 01:50 only for flight number 1094. Because both the Arrival Carrier and the Arrival Codeshare Operating Carrier are defined, the Arrival Flight Number Range Start and Arrival Flight Number Range End will be applied to the Arrival Carrier (KL).

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Arrival Flight Number Range Start	Arrival Flight Number Range End	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier
AMS	AMS	II	0150	KL	Y	KQ	1094	1094	KL		

ARRIVAL FLIGHT NUMBER RANGE START

The starting number of a flight number range for arriving flights.		
Application	**Format**	**Example**
Chapter 8	(nnnn)	0002

Use

To specify a specific flight or flight range for the arrival carrier.

When an MCT is filed for one specific flight, then both the Arrival Flight Number Range Start and the Arrival Flight Number Range End will be the same.

Note: *In order to facilitate information exchange, the following rules shall be applied and considered when using flight ranges.*

(a) Flight numbers must be 4 digits–include leading zeros.

(b) Either an Arrival Carrier or an Arrival Codeshare Operating Carrier must be specified when using these fields.

(c) If both the Arrival Carrier and the Arrival Codeshare Operating Carrier are defined, then the flight number will be applied to the Arrival Carrier.

(d) If the Arrival Carrier is not defined, then the flight number will be applied to the Arrival Codeshare Operating Carrier.

(e) If the Arrival Flight Number Range End is used, then the Arrival Flight Number Range Start must also be used and vice versa.

Example

See Arrival Flight Number Range End.

ARRIVAL STATION

The arriving station where the connection will occur.		
Application	**Format**	**Example**
Chapter 8	(aaa)	LHR

Use

To specify the location where the MCT will be applied.

This field can only be blank when a global suppression is used.

Values

Refer to the IATA Airline Coding Directory for 3-letter Location Identifiers.

ARRIVAL TERMINAL

The physical terminal of a station a passenger arrives in.		
Application	**Format**	**Example**
Chapter 8	X(x)	2A

Use

To specify an MCT for a specific terminal.

Values

Refer to SSIM Appendix D: Passenger Terminal Indicators.

DEPARTURE AIRCRAFT BODY

Identification of the aircraft type (narrow body or wide body)		
Application	**Format**	**Example**
Chapter 8	(a)	N

→ *For further guidance, refer to Appendix A: IATA Aircraft Types.*

Use

Enables an MCT to be filed by either narrow body or wide body.

Values

Code	Description
W	Wide body
N	Narrow body

DEPARTURE AIRCRAFT TYPE

Identification of the aircraft type at a Departure Station.		
Application	**Format**	**Example**
Chapter 8	(xxx)	76W

Use

Enables an MCT to be filed by specific manufacturer and Aircraft Type.

The IATA standard 3 character code that normally covers the manufacturer and main model of the commercial aircraft.

Values

Refer to Appendix A: IATA Aircraft Types

Example:

Carrier KL files MCTs based on the type of aircraft used in a connection.

Arrival Station	Depar-ture Station	Status	Time (HHMM)	Arrival Carrier	Arrival Code-share Indicator	Arrival Code-share Operating Carrier	Depar-ture Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Depar-ture Aircraft Type	Arrival Air-craft Type	
AMS	AMS	II	0130	KL			LH			380		MCT 1
AMS	AMS	II	0200	KL			LH			BUS		MCT 2
AMS	AMS	II	0200	KL			LH			TRN		MCT 3

Itineraries will build as follows:

Any KL flight connects to an LH flight operated by BUS at 02:00 using MCT 2.

Any KL flight connects to an LH flight operated by TRN at 02:00 using MCT 3.

Any KL flight connects to an LH flight operated by a 380 at 01:30 using MCT 1.

DEPARTURE CARRIER

The 2-letter Airline Designator of the receiving carrier at a specified Departure Station. This Airline Designator will also be used for the ticket and be displayed on the electronic flight/value coupons.		
Application	**Format**	**Example**
Chapter 8	(xx)	DL

Use

To specify the carrier of the MCT.

Please refer to 8.10 Application to see how this field is used.

Values

Refer to the IATA Airline Coding Directory to obtain Airline Designator.

DEPARTURE CODESHARE INDICATOR

An indicator to advise the MCT applies to codeshare flights where a DEI 50 is published.		
Application	**Format**	**Example**
Chapter 8	(a)	Y

Use

When the "Y" is present, the MCT applies specifically to codeshare flights. Codeshare is determined by the presence of a DEI 50 on the flight schedule.

When there is no "Y" present, the MCT does not apply to codeshare flights.

Please refer to 8.10 Application to see how this field is used.

Values

Code	Description
Y	Yes

Note 1: *If there is a "Y" in the indicator field, systems will reference the carrier's DEI 50 for application of an MCT. If a DEI 50 is not found, then the flight will be assumed to be the operating carrier.*

Note 2: *An MCT without the "Y" will be treated as operating.*

Note 3: *A marketing (Y) flight MCT will override an operating MCT.*

Note 4: *A marketing (Y) flight MCT is not necessary unless the marketing Carrier wants a longer MCT than the Codeshare Operating Carrier.*

Example:

Passenger wants to fly LHR-JFK-ATL. The following flights are available:

VS1345	LHR-JFK	2200	1730
DL0810	JFK-ATL	1820	2120
VS2810	JFK-ATL	1820	2120 (DEI 50 = DL0810)
DL0910	JFK-ATL	1855	2155
VS1700	JFK-ATL	1855	2155 (DEI 50 = DL0910)

The following MCTs are present:

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	
JFK	JFK	ID	0100	VS			VS	Y	DL	MCT 1
JFK	JFK	ID	0045	DL			DL			MCT 2
JFK	JFK	ID	0045	VS			DL			MCT 3

In MCT 1, VS (as the Departure Carrier) has chosen to file a longer MCT when DL is the Departure Codeshare Operating Carrier.

Itineraries will build as follows:

VS1345 connects to DL0810 with MCT 3

VS1345 connect to VS1700 with MCT 1

VS1345 and VS2810 will not connect

DEPARTURE CODESHARE OPERATING CARRIER

The 2-letter Airline Designator for the operating carrier at a Departure Station.		
Application	**Format**	**Example**
Chapter 8	(xx)	AA

Use

To specify the operating carrier of the MCT.

Please refer to 8.10 Application to see how this field is used.

This field is only valid when Departure Codeshare Indicator is "Y".

Values

Refer to the IATA Airline Coding Directory to obtain Airline Designator.

Note 1: *If a Departure Codeshare Operating Carrier is not defined and there is a "Y" in the Departure Codeshare Indicator, then use this MCT for all codeshare flights for the Departure Carrier.*

Note 2: *If a Departure Codeshare Operating Carrier is not defined and the Departure Codeshare Indicator is blank, then the Departure Carrier will be used to build the connections.*

Note 3: *If a Departure Codeshare Operating Carrier is defined, the Departure Carrier is blank and the Departure Codeshare Indicator has a "Y", then all flights with a DEI 50 referring to the Departure Codeshare Operating Carrier will build connections based upon the Departure Codeshare Operating Carrier.*

Example 1:

In LHR, AA requires a longer codeshare MCT than the two operating MCTs. All AA departing flights with a DEI 50, will build at 2:00 for II connections.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Code-share Indicator	Arrival Code-share Operating Carrier	Arrival Flight Number Range Start	Arrival Flight Number Range End	Departure Carrier	Departure Code-share Indicator	Departure Code-share Operating Carrier	
LHR	LHR	II	0200	AA					AA	Y		MCT 1
LHR	LHR	II	0145	AA					BA			MCT 2
LHR	LHR	II	0145	AA					IB			MCT 3

Example 2:

In LHR, All departing flights with a DEI 50 referring to an AA flight number, will build at a 02:00 connection.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	
LHR	LHR	II	0145	AA				Y	AA	MCT 1
LHR	LHR	II	0200	AA			BA			MCT 2

** If the departing flight is IB 4193 (DEI 50 = AA 0407), it will build at 01:45.*

** If the departing flight is BA 1532 (DEI 50 = AA 0407), it will build at 01:45.*

** If the departing flight is BA 0372 (no AA DEI 50 filed), it will build at 02:00.*

DEPARTURE FLIGHT NUMBER RANGE END

The ending number of a flight number range for departing flights.		
Application	**Format**	**Example**
Chapter 8	(nnnn)	3758

Use

To specify a specific flight or flight range for the departure carrier.

When an MCT is filed for one specific flight, then both the Departure Flight Number Range Start and the Departure Flight Number Range End will be the same.

Note: *In order to facilitate information exchange, the following rules shall be applied and considered when using flight ranges.*

(a) Flight numbers must be 4 digits–include leading zeros.

(b) Either a Departure Carrier or a Departure Codeshare Operating Carrier must be specified when using these fields.

(c) If both the Departure Carrier and the Departure Codeshare Operating Carrier are defined, then the flight number will be applied to the Departure Carrier.

(d) If the Departure Carrier is not defined, then the flight number will be applied to the Departure Codeshare Operating Carrier.

(e) If the Departure Flight Number Range Start is used, then the Departure Flight Number Range End must also be used and vice versa.

Example 1:

UA (operated by LH) files an II MCT of 01:15 only for flight number 8836. Because both the Departure Carrier and the Departure Codeshare Operating Carrier are defined, the Departure Flight Number Range Start and Departure Flight Number Range End will be applied to the Departure Carrier (UA).

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Arrival Flight Number Range Start	Arrival Flight Number Range End	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Departure Flight Number Range Start	Departure Flight Number Range End
FRA	FRA	II	0115	UA					UA	Y	LH	8836	8836

DEPARTURE FLIGHT NUMBER RANGE START

The starting number of a flight number range for departing flights.		
Application	**Format**	**Example**
Chapter 8	(nnnn)	0002

Use

To specify a specific flight or flight range for the departure carrier.

When an MCT is filed for one specific flight, then both the Departure Flight Number Range Start and the Departure Flight Number Range End will be the same.

Note: *In order to facilitate information exchange, the following rules shall be applied and considered when using flight ranges.*

(a) Flight numbers must be 4 digits–include leading zeros.

(b) Either a Departure Carrier or a Departure Codeshare Operating Carrier must be specified when using these fields.

(c) If both the Departure Carrier and the Departure Codeshare Operating Carrier are defined, then the flight number will be applied to the Departure Carrier.

(d) If the Departure Carrier is not defined, then the flight number will be applied to the Departure Codeshare Operating Carrier.

(e) If the Departure Flight Number Range Start is used, then the Departure Flight Number Range End must also be used and vice versa.

Example

See Departure Flight Number Range End.

DEPARTURE STATION

The departing station where the connection will occur.		
Application	**Format**	**Example**
Chapter 8	(aaa)	LHR

Use

To specify the location where the MCT will be applied.

This field must be populated by a station code even if is the same as the Arrival Station.

This field can only be blank when a global suppression is used.

Values

Refer to the IATA Airline Coding Directory for 3-letter Location Identifiers.

DEPARTURE TERMINAL

The physical terminal of a station the passenger departs out of.		
Application	**Format**	**Example**
Chapter 8	X(x)	2A

Use

To specify an MCT for a specific terminal.

Values

Refer to SSIM Appendix D: Passenger Terminal Indicators.

EFFECTIVE FROM DATE

Indicates the MCT starts on a specific date		
Application	**Format**	**Example**
Chapter 8	(nnaaann)	01JUN17

Use

If a date is supplied, the MCT will be applicable to the departure flight beginning on the date provided starting at (00:00).

EFFECTIVE TO DATE

Indicates the MCT last applies on a specific date		
Application	**Format**	**Example**
Chapter 8	(nnaaann)	31OCT17

Use

If a date is supplied, the MCT will be applicable to the departure flight on the date provided until 23:59.

Example:

AA files an exception to increase online MCT during the summer months. AA must file an Effective From Date and an Effective To Date in the MCT, which will create a date break for the general MCT increase.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Effective From Date	Effective To Date
LAX	LAX	DD	0040	AA			AA				26Mar17
LAX	LAX	DD	0045	AA			AA			27Mar17	26Oct17
LAX	LAX	DD	0040	AA			AA			27Oct17	

FILING DATE

Indicates the date a data aggregator processes the MCT into their system.		
Application	**Format**	**Example**
None	nnaaann	15DEC17

Use

This field is not used in the hierarchy. It is for informational purposes only and is populated by the data aggregators.

INTERNATIONAL/DOMESTIC STATUS

Identification of the international/domestic status on each flight leg to control the correct generation of flight connections between two flights		
Application	**Format**	**Example**
Chapter 8	aa	DD

→ For further guidance, refer to Minimum Connecting Time International/Domestic Status Chapter 2.4: Data Element Listings.

Use

To determine the applicable MCT based upon the arrival and departure status of the connecting flights.

Values

Code	Description
DD	Domestic to Domestic
DI	Domestic to International
ID	International to Domestic
II	International to International

NEXT COUNTRY

The ISO Country Code indicating the next country of the departing flight.		
Application	**Format**	**Example**
Chapter 8	(aa)	US

Use

When provided by the carrier, enables an MCT to be applied by the next country of the departing flight.

Values

Refer to the IATA Airline Coding Directory (ACD).

NEXT REGION

Indicates the next region of the departing flight.		
Application	**Format**	**Example**
Chapter 8	(aaa)	EUR

Use

When provided by the carrier, enables an MCT to be applied by the next region of the departing flight.

Values

Refer to the SSIM Appendix I: Region Codes.

Note: *No other location code can be included when region is present. (Next Country, Next State)*

NEXT STATE

The 2-letter code indicating the next state of the departing flight		
Application	**Format**	**Example**
Chapter 8	(aa)	GA

Use

When provided by the carrier, enables an MCT to be applied by the next state of the departing flight.

Values

Those States, Provinces and Territories as defined in The IATA Airline Coding Directory (ACD).

Note: *Next Country must also be provided when Next State is indicated.*

NEXT STATION

The next station of the departing flight		
Application	**Format**	**Example**
Chapter 8	(aaa)	MAD

Use

When provided by the carrier, enables an MCT to be applied by the next station of the departing flight.

Values

Refer to the IATA Airline Coding Directory for 3-letter Location Identifiers.

PREVIOUS COUNTRY

The ISO Country Code indicating the previous country of the arriving flight.		
Application	**Format**	**Example**
Chapter 8	(aa)	US

Use

When provided by the carrier, enables an MCT to be applied by the previous country of the arriving flight.

Values

Refer to the IATA Airline Coding Directory (ACD).

PREVIOUS REGION

Indicates the previous region of the arriving flight		
Application	**Format**	**Example**
Chapter 8	(aaa)	EUR

Use

When provided by the carrier, enables an MCT to be applied by the previous region of the arriving flight.

Values

Refer to the SSIM Appendix I: Region Codes.

Note: *No other location code can be included when region is present. (Previous Country, Previous State)*

PREVIOUS STATE

The 2-letter code indicating the previous state of the arriving flight.		
Application	**Format**	**Example**
Chapter 8	(aa)	GA

Use

When provided by the carrier, enables an MCT to be applied by the previous state of the arriving flight.

Values

Those States, Provinces and Territories as defined in The IATA Airline Coding Directory (ACD).

Note: *Previous Country must also be provided when Previous State is indicated.*

PREVIOUS STATION

The previous station of the arriving flight		
Application	**Format**	**Example**
Chapter 8	(aaa)	MAD

Use

When provided by the carrier, enables an MCT to be applied by the previous station of the arriving flight.

Values

Refer to the IATA Airline Coding Directory for 3-letter Location Identifiers.

SUBMITTING CARRIER IDENTIFIER

The 2-character Airline Designator of the carrier submitting the MCT.		
Application	**Format**	**Example**
Chapter 8	(xx)	CD

Use

Will be blank where a Station Standard MCT is specified.

This field is not used in the hierarchy. It is for informational purposes only and populated by the data aggregators.

Values

Refer to the IATA Airline Coding Directory to obtain Airline Designator.

SUPPRESSION COUNTRY

The ISO Country Code indicating the area of the suppression		
Application	**Format**	**Example**
Chapter 8	(aa)	US

Use

To apply a suppression to all stations within the indicated country.

Values

Refer to the IATA Airline Coding Directory (ACD).

Note: *Caution must be taken when using this field. Carriers may unintentionally suppress all connections within the country specified unless other data fields are provided in the MCT.*

Example

AA and VS do not want to build connections to/from all stations in the US. The following MCTs will be filed:

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Suppression Indicator (Y/N)	Suppression Region	Suppression Country	Suppression State
		DD		AA			VS			Y		US	
		DI		AA			VS			Y		US	
		ID		AA			VS			Y		US	
		II		AA			VS			Y		US	
		DD		VS			AA			Y		US	
		DI		VS			AA			Y		US	
		ID		VS			AA			Y		US	
		II		VS			AA			Y		US	

SUPPRESSION INDICATOR

Indicates whether connections should be suppressed or not.		
Application	**Format**	**Example**
Chapter 8	a	Y

Default

If blank, a default value “N” will be used indicating a connection could build.

Use

To suppress connections between carriers.

Values

Code	Description
Y	Yes
N	No (default value)
Blank	No (for all station standard MCTs)

SUPPRESSION REGION

Indicates the region where the suppression will occur		
Application	**Format**	**Example**
Chapter 8	(aaa)	EUR

Use

When provided by the carrier, enables all stations within the region to be suppressed from building connections.

Values

Refer to the SSIM Appendix I: Region Codes.

Note: *No other location code can be included when region is present. (Suppression Country, Suppression State)*

Example:

DL operates flights from North America (NOA) to Europe (EUR).

KL operates flights from Europe (EUR) to the country of South Korea (KR).

DL and KL have decided they do not want connections being built within Europe when the passenger is traveling from North America and traveling to South Korea; preferring to route passengers over a Pacific routing.

The following MCTs would be on record:

Arrival Station	Depar-ture Station	Status	Time (HHMM)	Arrival Carrier	Arrival Code-share Indicator	Arrival Codeshare Operating Carrier	Depar-ture Carrier	Depar-ture Code-share Indicator	Departure Codeshare Operating Carrier	Previous Country	Next Country	Previous Region	Next Region	Sup-pression Indicator (Y/N)	Sup-pression Region	Sup-pression Country	Sup-pression State
		II		DL			KL				KR	NOA		Y	EUR		
		II		KL			DL			KR			NOA	Y	EUR		

SUPPRESSION STATE

The 2-letter code indicating the country where the suppression will apply.		
Application	**Format**	**Example**
Chapter 8	(aa)	CA

Use

When provided by the carrier, enables all stations within the state to be suppressed from building connections.

Values

Those States, Provinces and Territories as defined in The IATA Airline Coding Directory (ACD).

Note: *Suppression Country must also be provided when Suppression State is indicated.*

Example:

UA does not want to build any connections to any carriers except itself within the state of California (CA) in the United States (US). The following MCTs would be on record:

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Carrier Suppression Indicator (A/X)	Suppression Indicator (Y/N)	Sup-pression Region	Sup-pression Country	Sup-pression State
		DD		UA						X	Y		US	CA
		DD					UA			X	Y		US	CA

TIME

The time interval in hours and minutes.		
Application	**Format**	**Example**
Chapter 8	(nnnn)	0130 (indicates 1 hour and 30 minutes)

Use

Specifies the minimum time to be used when building connections.

Time will be blank when the Suppression Indicator is Y.

Note: *Time must be indicated with four digits–include leading zeroes.*

Example 1:

0400 indicates 4 hours and 0 minutes.

Example 2:

0030 indicates 30 minutes.

8.9 Presentation and Transfer of a Minimum Connecting Time Data Set

This section provides the global air transport community with a single set of standard data formats for any two systems to exchange MCT data. It is for full data transmission or for transmitting additions and deletions only.

8.9.1 MCT Data Format Constraints

Three Data Records have been defined. Each MCT transmission is made up of a combination of these three record types. Each record is 200 bytes long and is subdivided into Data Elements.

Each Data Element is expressed in a single fixed length format; it occupies a fixed position in a record. The Data Element Status describes whether the information is mandatory, conditional or optional, also how redundant information is to be added, e.g. with blanks or zeroes. Incompletely filled or unused Data Elements will be padded so all records are 200 bytes long.

All data will be expressed in EBCDIC or ASCII;

A blank should be equivalent to the space character, defined as hexadecimal 40;

A zero should be equivalent to the display zero character, defined as hexadecimal F0.

8.9.2 Record Organization

Three Record Types are used. These are:

Header Record, MCT Record and Trailer Record.

Header Record–Record Type 1 (Mandatory)

The first 200 bytes will comprise the record itself.

MCT Record–Record Type 2 (Mandatory)

The record type is used to commence expressing the MCT Station data and suppression data.

Trailer Record–Record Type 3 (Mandatory)

The first 200 bytes will comprise the record itself.

□ **Airline Partners–Record Type 3 (Optional) [Effective 01 November 2022]**

The record type is used to identify interline agreements with airlines.

Trailer Record–Record Type 4 (Mandatory) [Effective 01 November 2022]

The first 200 bytes will comprise the record itself.

8.9.3 Record Composition

8.9.3.1 Header Record–Record Type 1

The purpose of this record is to assure users the data set is being correctly read, and defines the data source. The record has a standard length of 200 bytes broken into the following fields:

Bytes From	Bytes To	Data Element	Data Element Status	Remarks
1	1	Record Type	M	Always 1
2	31	Title of Contents	M	Always reads MINIMUM CONNECT TIME DATA SET
32	66	Creator Reference	M	Free Format
67	73	Creation Date (in UTC)	M	DDMMMYY
74	77	Creation Time (in UTC)	M	Hours, minutes of data creation (e.g. 1346)
78	78	Content Indicator	M	F = indicates 'full' file replacement **OR** U = contains updates only i.e. Adds and Deletes
79	194	(Spare)	M	Blank fill
195	200	Record Serial Num-ber	M	Always 000001

8.9.3.2 MCT Record–Record Type 2

The record gives the MCT details for each station and for each suppression by the Submitting Carrier. The record has the standard length of 200 Bytes broken into the following fields:

Bytes From	Bytes To	Data Element	Data Element Status	Remarks
1	1	Record Type	M	Always 2
2	4	Arrival Station	C	3-character IATA code May be blank for global suppression
5	8	Time	C	Hours and Minutes HHMM May be Blank for suppression
9	10	International/ Domestic Status	M	Two character combination of D and/or I
11	13	Departure Station	C	3-character IATA code May be Blank for global suppression
14	15	Arrival Carrier	C	
16	16	Arrival Codeshare Indicator	O	Y or Blank

Bytes From	Bytes To	Data Element	Data Element Status	Remarks
17	18	Arrival Codeshare Operating Carrier	C	
19	20	Departure Carrier	C	
21	21	Departure Code-share Indicator	O	Y or Blank
22	23	Departure Code-share Operating Carrier	C	
24	26	Arrival Aircraft Type	O	3-character IATA code Cannot be used in conjunction with Arrival Aircraft Body
27	27	Arrival Aircraft Body	O	W or N Cannot be used in conjunction with Arrival Aircraft Type
28	30	Departure Aircraft Type	O	3-character IATA code Cannot be used in conjunction with Depar-ture Aircraft Body
31	31	Departure Aircraft Body	O	W or N Cannot be used in conjunction with Depar-ture Aircraft Type
32	33	Arrival Terminal	O	Alphanumeric, left justify, blank fill
34	35	Departure Terminal	O	Alphanumeric, left justify, blank fill
36	37	Previous Country	C	2-character ISO code. Always populated when using Previous State. Cannot be used in conjunction with Previous Station, Pre-vious Region
38	40	Previous Station	O	3-character IATA code. Cannot be used in conjunction with Previous Country, Previous State, Previous Region
41	42	Next Country	C	2-character ISO code. Always populated when using Next State. Cannot be used in conjunction with Next Station, Next Region
43	45	Next Station	O	3-character IATA code. Cannot be used in conjunction with Next Country, Next State, Next Region.
46	49	Arrival Flight Num-ber Range Start	O	4-numerics. Leading zeros If the MCT is for a specific flight number then the flight number should be repeated in Arrival Flight Number Range End
50	53	Arrival Flight Num-ber Range End	C	4-numerics. Leading zeros If the MCT is for a specific flight number then the flight number should match the Arrival Flight Number Range Start

Bytes From	Bytes To	Data Element	Data Element Status	Remarks
54	57	Departure Flight Number Range Start	O	4-numerics. Leading zeros If the MCT is for a specific flight number then the flight number should be repeated in Departure Flight Number Range End
58	61	Departure Flight Number Range End	C	4-numerics. Leading zeros If the MCT is for a specific flight number then the flight number should match the Departure Arrival Flight Number Range Start
62	63	Previous State	O	2-character IATA code. Country Code must also be present. Cannot be used in conjunction with Previous Station, Previous Region
64	65	Next State	O	2-character IATA code. Country Code must also be present. Cannot be used in conjunction with Next Station, Next Region
66	68	Previous Region	O	3-character IATA code. Cannot be used in conjunction with Previous Country, Previous State, Previous Station
69	71	Next Region	O	3-character IATA code. Cannot be used in conjunction with Next Country, Next State, Next Station
72	78	Effective From Date (Local)	O	DDMMMYY or blank
79	85	Effective To Date (Local)	O	DDMMMYY or blank
86	86	(Spare)	M	Blank Fill
87	87	Suppression Indicator	C	Y or N. Default is N. Blank when Station Standard
88	90	Suppression Region	O	IATA Region code denoting area of suppression. If blank then the suppression is to be applied globally
91	92	Suppression Country	C	IATA Country code denoting the suppression by Country suppression
93	94	Suppression State	O	IATA State code denoting suppression by State. When using this field, Suppression Country must also be used.
95	96	Submitting Carrier Identifier	C	2 character Airline designator to be populated by the data aggregators. Will be blank if MCT is station standard
97	103	Filing Date (Local)	C	DDMMMYY For informational purposes only. To be populated by the data aggregators. Will be blank if MCT is station standard
104	104	Action Indicator	C	A = Add, D = Delete Blank when full replacement file

Bytes From	Bytes To	Data Element	Data Element Status	Remarks
105	194	(Spare)	M	Blank fill
195	200	Record Serial Number	M	Numeric. One greater than the previous record which must have been either a Header Record or a Station Data Record

8.9.3.3 Trailer Record–Record Type 3 (becomes Record Type 4 as of 01 November 2022)

The record defines the end of the data. The record has a standard length of 200 bytes broken into the following fields:

Bytes From	Bytes To	Data Element	Data Element Status	Remarks
1	1	Record Type	M	Always 3
2	193	(Spare)	M	Blank Fill
194	194	End Code	M	Always E
195	200	Serial Number Check Reference	M	6-digit numeric serial number. Equal to the record serial number of the previous record irrespective of its record type and one less than the record serial number of this trailer record (bytes 195-200).

□ **Airline Partners–Record Type 3 [Effective 01 November 2022]**

Use for the Connection-Building Filter

The record defines the carrier(s) that are allowed to connect with the submitting carrier.

Multiple records may exist for a single submitting carrier. The record has a standard length of 200 bytes broken into the following fields:

Bytes From	Bytes To	Data Element	Data Element Status	Remarks
1	1	Record Type	M	Always 3
2	4	Submitting Airline Designator	M	2-character airline code (left justified)
5	194	Allow Airline Designator	C	Space for 95 2-character airline designators
195	200	Serial Number Check Reference	M	6-digit numeric serial number. Equal to the record serial number of the previous record irrespective of its record type and one less than the record serial number of this trailer record (bytes 195-200).

□ 8.9.3.4 Trailer Record-Record Type 4 [Effective 01 November 2022]

8.10 Application

This section contains recommended practices for the submission and processing of MCTs.

8.10.1 MCTs must be applied according to the MCT Data Elements Hierarchy Table in Section 8.6.

8.10.2 Global default MCTs are defined as follows:

(a) DD: 0030

(b) DI: 0100

(c) ID: 0130

(d) II: 0130

The global default for inter-station connections is 0400 for all status types (DD, DI, ID, II).

8.10.3 Hierarchy rules:

(a) Any station default MCT overrides any global default MCT.

(b) The priority between station default MCTs is determined by the hierarchy of the populated fields. If two or more station default MCT records cannot be resolved by hierarchy (i.e. they have exactly the same set of non-empty hierarchy data fields), the priority will be resolved by the following fields (in order):

(i) next region (SCH overrides EUR, otherwise go to next step)

(ii) previous region (SCH overrides EUR, otherwise go to next step)

(iii) If no record can be selected up to here, records are assumed to be “duplicates” (see 8.10.10)

(c) Any MCT exception, station-specific MCT suppression or geographic (global) MCT suppression overrides any station default MCT and any global default MCT.

(d) The priority between MCT exceptions, station-specific MCT suppressions and geographic (global) MCT suppressions is determined by the hierarchy of the populated fields. If two or more MCT records cannot be resolved by hierarchy (i.e. they have exactly the same set of non-empty hierarchy data fields), the priority will be resolved by the following fields (in order):

(i) departure flight number range (subset overrides larger range, otherwise go to next step)

(ii) arrival flight number range (subset overrides larger range, otherwise go to next step)

(iii) next region (SCH overrides EUR, otherwise go to next step)

(iv) previous region (SCH overrides EUR, otherwise go to next step)

(v) suppression region (SCH overrides EUR, otherwise go to next step)

(vi) If no record can be selected up to here, those records are assumed to be duplicates and shall be rejected by the data aggregators (see 8.10.10)

☐ If carriers use record type 3 to supply a Connection-Building Filter partner list, only those carriers in their list will be considered for connection building and subject to the hierarchy rules. Carriers not on their list will never be considered for connection building and the hierarchy rules will not apply. If connections are allowed to build between carriers, then the hierarchy rules listed above will apply. This applies to both marketing and/or operating carrier identified in the DEI50. [Effective 01 November 2022]

8.10.4 The Departure Carrier takes priority over the Arrival Carrier except in cases where there is no Departure Carrier MCT filed.

Example:

Schedule information:

AA 1532	13JUL	DFW	MAD	2200	0833
IB 0723	13JUL	MAD	BCN	1018	1147

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Arrival Flight Number Range Start	Arrival Flight Number Range End	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	
MAD	MAD	ID	0135	AA					IB			MCT 1
MAD	MAD	ID	0140						IB			MCT 2
MAD	MAD	ID	0130	AA			0001	2759				MCT 3

Based upon the hierarchy table, order and processing is as follows:

1. MCT Item 1 is matched since it contains both the Departure Carrier (IB) and the Arrival Carrier (AA).
2. In the absence of MCT Item 1, MCT Item 2 is matched since it contains a Departure Carrier (IB).
3. In the absence of MCT Item 1 and 2, MCT Item 3 is matched since it contains the Arrival Carrier and the Arrival Flight Number Ranges.

8.10.5 For codeshare flights, MCTs will be established by the operating carrier, unless overwritten by the marketing carrier. The MCT used for a marketing flight shall be applied by referring to the marketing carrier's DEI 50 on the published flight.

8.10.6 Usage of Codeshare Indicator and Codeshare Operating Carrier Data Elements:

Example 1:

Arrival Carrier (BA)

Arrival Codeshare Indicator (Y)

Arrival Codeshare Operating Carrier (AA)

* Only applies to BA codeshare flights where AA is the operating carrier

Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier
BA	Y	AA

Example 2:

Arrival Carrier (BA)

Arrival Codeshare Indicator (Y)

Arrival Codeshare Operating Carrier (blank)

* Applies to ALL BA codeshares

Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier
BA	Y	

Example 3:

Arrival Carrier (BA)

Arrival Codeshare Indicator (blank)

Arrival Codeshare Operating Carrier (blank)

* Applies to BA Operating flights only.

Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier
BA		

Example 4:

Arrival Carrier (blank)

Arrival Codeshare Indicator (Y)

Arrival Codeshare Operating Carrier (AA)

* Applies to ALL codeshare flights operated by AA.

Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier
	Y	AA

8.10.7 Defaulting codeshare flights to operating carrier MCTs

Example:

DL codeshares with KL at AMS. DL files no MCTs at AMS. Based on DEI 50 filings with DL flights referencing KL operating flights, MCT application will default to operating carrier values.

DL 9667 ATL-AMS 1555-0600 (DEI 50 = KL 0624)

DL 0072 ATL-AMS 1740-0815

DL 9556 AMS-FRA 0950-1105 (DEI 50 = KL 1765)

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier
AMS	AMS	II	0055	KL			KL		

AMS Station Standard II MCT–50 minutes

Itineraries will build as follows:

DL 9667 connecting to DL 9556 defaults to KL to KL at 00:55 based on DEI 50 filing

DL 0072 connecting to DL 9556 defaults to Station Standard of 00:50 per no applicable exception

8.10.8 Filing MCTs for Codeshare Flights

Example:

DL codeshares with VS at JFK. There are multiple options for filing codeshare MCTs, allowing carriers to adjust filing methods over time without impacting current displays.

DL 0040 LAX-JFK 0845-1715

DL 4373 JFK-LHR 1830-0630 (DEI 50 = VS 0004)

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Departure Flight Number Range Start	Departure Flight Number Range End	
JFK	JFK	DI	0045	DL			DL	Y	VS	4339	4438	MCT 1
JFK	JFK	DI	0045	DL			DL	Y	VS			MCT 2
JFK	JFK	DI	0045	DL			DL	Y				MCT 3
JFK	JFK	DI	0045	DL			VS					MCT 4

DL 0040 connecting to DL 4373: MCT may be correctly filed using any of the 3 exceptions

DL to DL codeshare	Any DL flight connecting to any DL codeshare flight (MCT 3)
DL to DL codeshare VS	Any DL flight connecting to any DL codeshare flight operated by VS (MCT 2)
DL to DL codeshare VS	Any DL flight connecting to any DL codeshare flight operated by VS using DL flight number range 4339-4438 (MCT 1)
DL to VS	Only applicable if the other 3 MCTs are not present. This is the operating MCT. (MCT 4)

8.10.9 Transition from flight number ranges to codeshare operating carrier

Example:

DL files updates to MCTs removing codeshare flight number ranges and replaces them with the operating carrier code. Replacing flight ranges with the codeshare operating carrier reduces the number of filings required to manage MCTs while providing improved clarity relating to the intended application of the filing.

DL MCTs for codeshare flights operated by VS, WS, AF.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Departure Flight Number Range Start	Departure Flight Number Range End	
JFK	JFK	DI	0045	DL			DL			4339	4438	MCT 1
JFK	JFK	DI	0045	DL			DL	Y	VS			Replaces MCT 1
JFK	JFK	DI	0045	DL			DL			7632	7651	MCT 2
JFK	JFK	DI	0045	DL			DL	Y	WS			Replaces MCT 2
JFK	JFK	DI	0115	DL			DL			1014	1023	MCT 3
JFK	JFK	DI	0115	DL			DL			8261	8729	MCT 4
JFK	JFK	DI	0115	DL			DL	Y	AF			Replaces MCT 3 & 4

DL connecting to DL 4339-4438	Replaced by DL connecting to DL operated by VS
DL connecting to DL 7632-7651	Replaced by DL connecting to DL operated by WS
DL connecting to DL 1014-1023/ 8261-8729	2 filings replaced by 1 filing for DL connecting to DL operated by AF

8.10.10 Duplicates are two MCT records with

(a) same status

(b) same set of hierarchy fields are set

(c) flight number ranges intersect (if not empty and not a subset)

(d) regions are identical or intersect (if not empty)

(e) effective from/to period intersect or is a subset (if not empty)

(f) all other hierarchy field are identical

Examples:

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Arrival Flight Number Range Start	Arrival Flight Number Range End	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Departure Flight Number Range Start	Departure Flight Number Range End	Arrival Terminal	Departure Terminal	
LHR	LHR	II	0500	AA	Y	BA	1000	2000	9B			3000	4000			MCT 1
LHR	LHR	II	0400	AA	Y	BA	1500	2500	9B			3100	3101	1		MCT 2

Both Arriving Flight Ranges and Departing Flight Ranges overlap; but because of the Arrival Terminal in MCT 2, These MCTs are allowed.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Arrival Flight Number Range Start	Arrival Flight Number Range End	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Departure Flight Number Range Start	Departure Flight Number Range End	
LHR	LHR	II	0500	AA	Y	BA	1000	2000	9B			3000	4000	MCT 1
LHR	LHR	II	0400	AA	Y	BA	1500	1500	9B			3100	3101	MCT 2

In MCT 2, both the Arrival Flight Range and Departure Flight Range are subsets (fully contained) within the ranges in MCT 1. These MCTs are allowed.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Arrival Flight Number Range Start	Arrival Flight Number Range End	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Departure Flight Number Range Start	Departure Flight Number Range End	
LHR	LHR	II	0500	AA	Y	BA	20	20	9B			4000	4100	MCT 1
LHR	LHR	II	0400	AA	Y	BA	20	20	9B			4016	4016	MCT 2

The Arrival Flight Range in both MCTs is the same (a single {identical} flight. The Departure Flight Range in MCT 2 is a subset of (fully contained within) the range of MCT 1. These MCTs are allowed.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Arrival Flight Number Range Start	Arrival Flight Number Range End	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Departure Flight Number Range Start	Departure Flight Number Range End	
LHR	LHR	II	0500	AA	Y	BA	6000	9999	9B			1999	2999	MCT 1
LHR	LHR	II	0400	AA	Y	BA	6000	9999	9B			2499	3499	MCT 2

The Arrival Flight Range in both MCTs is the same. The Departure Flight Range in MCT 2 is an overlap of MCT 1. These MCTs are not allowed.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Arrival Flight Number Range Start	Arrival Flight Number Range End	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Departure Flight Number Range Start	Departure Flight Number Range End	
LHR	LHR	II	0500	AA	Y	BA	1999	2999	9B			5999	6999	MCT 1
LHR	LHR	II	0400	AA	Y	BA	1999	2999	9B			5999	6499	MCT 2

The Arrival Flight Range in both MCTs is the same. The Departure Flight Range in MCT 2 is a real subset of MCT 1. These MCTs are allowed.

Arrival Station	Departure Station	Status	Time (HHMM)	Arrival Carrier	Arrival Codeshare Indicator	Arrival Codeshare Operating Carrier	Departure Carrier	Departure Codeshare Indicator	Departure Codeshare Operating Carrier	Next Region	Previous Region	
LHR	LHR	II	0500	AA	Y	BA	9B			EUR	EUR	MCT 1
LHR	LHR	II	0400	AA	Y	BA	9B			EUR	SCH	MCT 2

The Next Region MCT 2 has a SCH vs. EUR precedence over Next Region in MCT 1. These MCTs are allowed.

8.10.11 Minimum data elements for adding an MCT:

For an MCT, the following are the fields that must be submitted in order for the MCT to be valid:

Action Indicator

Arrival Station

Departure Station

Status

Time

Arrival Carrier and/or Departure Carrier

For an MCT global suppression, the following are the data elements that must be submitted in order for the MCT to be valid:

Action Indicator

Status

Arrival Carrier and/or Departure Carrier

Suppression Indicator

8.10.12 Minimum data elements for deleting an MCT:

All existing data elements must be supplied and match what's currently on file.

8.10.13 Applying MCT updates:

Deletes (data where the Action Indicator = D), should be processed before Adds (data where the Action Indicator = A) within the same Station. This is to avoid overlaps and duplications. However, if any MCT submission is rejected based on incomplete data, the data aggregator would not process any MCT for the specific Station until the data is corrected by the submitter. This is to prevent partially loaded Stations from being processed.

8.11 Designation of MCT Coordinator in Each Carrier

In order to ensure proper coordination of MCTs, each carrier is requested to designate an MCT coordinator. The coordinator's name, mailing address and email must be submitted to ssim@iata.org. Any change to this information should be sent to IATA promptly. The MCT Coordinator Contacts are listed under Attachment 3 of SSIM.

8.12 Carrier Submission Template

It is recommended that carriers submit their MCT data in the following order. Template is located within the Plan Standards Board site (www.iata.org/psc-plan).

ACTION INDICATOR	STATION		CONNECTION	TIME	ARR CARRIER			ARR FLIGHT #		DEPARTURE CARRIER			DEPART FLIGHT #		TERMINAL		STATION		STATE		COUNTRY		REGION		AIRCRAFT TYPE		AIRCRAFT BODY (W/N)		SUPPRESSIONS				DATE	
(A/D)	ARR	DEPT	STATUS	HHMM	Carrier	Codeshare Indicator	Codeshare Operating	Range Start	Range End	Carrier	Codeshare Indicator	Codeshare Operating	Range Start	Range End	Arrive	Depart	Prev	Next	Prev	Next	Prev	Next	Prev	Next	Arrive	Depart	Arrive	Depart	Suppression Indicator (Y/N)	Region	Country	State	Effective From	Effective To

□ 8.13 Connection-Building Filter Submission Template [Effective 01 November 2022]

It is recommended that carriers who wish to submit their interline partners for the Connection-Building Filter should use the following template:

Submitting Carrier ZZ

Interline and Codeshare Partners

1	2	3	4	5	6	7	8	9	10	
XX	YY	AA	BB	CC	DD	EE	FF	GG	HH	1
II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	2
SS	TT	UU	VV	WW	ZA	ZB	ZC	ZD	ZE	3
ZF	ZG	ZH	ZI	ZJ	ZK	ZL	ZM	ZN	ZO	4
ZP	ZQ	ZR	ZS	ZT	ZU	ZV	ZW	ZX	ZY	5
YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	6
YK	YL	YM	YN	YO	YP	YQ	YR	YS	YT	7
YU	YV	YW	YX	YY	YZ	XA	XB	XC	XD	8
XE	XF	XG	XH	XI	XJ	XK	XL	XM	XN	9
XO	XP	XQ	XR	XS						10
										11
										12
										13

Template is located within the Plan Standards Board site (www.iata.org/psc-plan).

8.14 MCT Transmission Format

△ The following is a sample of a transmission format currently valid until 31 October 2022:

1MINIMUM CONNECT TIME DATA SET ABC AGGREGATOR						05SEP181453F	000001
2LHR IILHRAAYBAAAYBA		5 3 IN		CA	Y	AA05SEP18	000002
2LHR IILHRAAYBAAAYBA		3 5 IN		CA	Y	AA05SEP18	000003
2LHR IILHRAAYBAAAYBA		5 5 IN		CA	Y	AA05SEP18	000004
2LHR0100IILHRUAYLHUAYAC		2 2		CA	N	UA05SEP18	000005
2LHR0100IILHRUAYOSUAYAC		2 2		CA	N	UA05SEP18	000006
2LHR0100IILHRUAYACUAYLH		2 2		CA	N	UA05SEP18	000007
2LHR0100IILHRUAYACUAYOS		2 2		CA	N	UA05SEP18	000008
2CDG0130IICDGDLYAFDLY9W	2C2E		01JUN18		N	DL05SEP18	000009
2CDG0130IICDGDLY9WDLYAF	2C2E		01JUN18		N	DL05SEP18	000010
2LHR0100IILHRAAYIBAAYIB		3 3			N	AA05SEP18	000011
2FRA0200IIFRAUAYLHUAYAC		LUX		CA	N	UA05SEP18	000012
2FRA0100IIFRAUAYLXUAYLH		CH		US	N	UA05SEP18	000013
2FRA0100IIFRAUAYLHUAYLX		US		CH	N	UA05SEP18	000014
2FRA0100IIFRAUAYLHUAYOS		US		AT	N	UA05SEP18	000015
2FRA0100IIFRAUAYLHUAYSA		US		ZA	N	UA05SEP18	000016
2FRA0100IIFRAUAYSAUAYLH		ZA		US	N	UA05SEP18	000017
2FRA0100IIFRAUAYOSUAYLH		AT		US	N	UA05SEP18	000018
2LHR0130IILHRDLY9WDLYVS		IN		US	N	DL05SEP18	000019
2LHR0130IILHRDLYVSDLY9W		US		IN	N	DL05SEP18	000020
2FRA0045IIFRAUAYLHUAYLH		US		SCH	N	UA05SEP18	000021
2FRA0100IIFRAUAYLHUAYLH		US			N	UA05SEP18	000022
2FRA0100IIFRAUAYLHUAYAC		CA			N	UA05SEP18	000023
2FRA0100IIFRAUAYACUAYLH		CA			N	UA05SEP18	000024
2FRA0100IIFRAUAYLHUAYLH		US			N	UA05SEP18	000025
3							E000025

☐ New transmission format [Effective 01 November 2022]

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1MINIMUM CONNECT TIME DATA SET ABC AGGREGATOR                  05SEP181453F                                                  000001
2LHR    IILHRAAYBAAAYBA       5 3 IN   CA                                        Y      AA05SEP18                           000002
2LHR    IILHRAAYBAAAYBA       3 5 IN   CA                                        Y      AA05SEP18                           000003
2LHR    IILHRAAYBAAAYBA       5 5 IN   CA                                        Y      AA05SEP18                           000004
2LHR0100IILHRUAYLHUAYAC       2 2      CA                                        N      UA05SEP18                           000005
2LHR0100IILHRUAYOSUAYAC       2 2      CA                                        N      UA05SEP18                           000006
2LHR0100IILHRUAYACUAYLH       2 2 CA                                             N      UA05SEP18                           000007
2LHR0100IILHRUAYACUAYOS       2 2 CA                                             N      UA05SEP18                           000008
2CDG0130IICDGDLYAFDLY9W       2C2E                                  01JUN18      N      DL05SEP18                           000009
2CDG0130IICDGDLY9WDLYAF       2C2E                                  01JUN18      N      DL05SEP18                           000010
2LHR0100IILHRAAYIBAAYIB       3 3                                                N      AA05SEP18                           000011
2FRA0200IIFRAUAYLHUAYAC            LUXCA                                         N      UA05SEP18                           000012
2FRA0100IIFRAUAYLXUAYLH            CH   US                                       N      UA05SEP18                           000013
2FRA0100IIFRAUAYLHUAYLX            US   CH                                       N      UA05SEP18                           000014
2FRA0100IIFRAUAYLHUAYOS            US   AT                                       N      UA05SEP18                           000015
2FRA0100IIFRAUAYLHUAYSA            US   ZA                                       N      UA05SEP18                           000016
2FRA0100IIFRAUAYSAUAYLH            ZA   US                                       N      UA05SEP18                           000017
2FRA0100IIFRAUAYOSUAYLH            AT   US                                       N      UA05SEP18                           000018
2LHR0130IILHRDLY9WDLYVS            IN   US                                       N      DL05SEP18                           000019
2LHR0130IILHRDLYVSDLY9W            US   IN                                       N      DL05SEP18                           000020
2FRA0045IIFRAUAYLHUAYLH                 US                  SCH                 N      UA05SEP18                           000021
2FRA0100IIFRAUAYLHUAYLH                 US                                      N      UA05SEP18                           000022
2FRA0100IIFRAUAYLHUAYAC                 CA                                      N      UA05SEP18                           000023
2FRA0100IIFRAUAYACUAYLH            CA                                           N      UA05SEP18                           000024
2FRA0100IIFRAUAYLHUAYLH            US                                           N      UA05SEP18                           000025
3AA XXYYZZAABBCCDDEEFFGGHHII3JKKLLMMNNOOPPQQRRSSTTUUVVWWXXYYZZABACADAFAGAHAIAJAKALAMANAOAPAQASATAUAVAWAXAYAZ                    000026
4                                                                                                                           E000026
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