

Airline Route Optimizer Report

Auto-generated using scripts/report.py.

Airlines showcased: Delta Air Lines, American Airlines

Network Snapshots

Delta Air Lines

- Routes analyzed: 1981
- Airports served: 354
- Total routes: 1981
- Top hubs: [(‘ATL’, 419), (‘DTW’, 263), (‘MSP’, 254), (‘SLC’, 176), (‘JFK’, 172)]

American Airlines

- Routes analyzed: 2354
- Airports served: 434
- Total routes: 2354
- Top hubs: [(‘DFW’, 364), (‘CLT’, 267), (‘ORD’, 248), (‘MIA’, 240), (‘PHL’, 235)]

Competing Route Overlap

Source	Dest	Delta Air Lines	American Airlines	Delta Air Lines_Aircraft	American Airlines_Aircraft
ATL	CLT	0.0	0.0	M90 M88 319	319 320 CR9 321
ATL	DFW	0.0	0.0	M88 319 738	M80 319 M83
ATL	LHR	0.0	0.0	764 77L 76W	777
ATL	MIA	0.0	0.0	M88 M90 757 320 73H	738
ATL	ORD	0.0	0.0	757 319 320 717 M88 M90	CR7 E75

Source	Dest	Delta Air Lines	American Airlines	Delta Air Lines_Aircraft	American Airlines_Aircraft
ATL	PHL	0.0	0.0	757 320 M88 M90 73H	E75 E90 319 CRJ E70
ATL	PHX	0.0	0.0	757 73H 739 738	320 321
AUS	JFK	200828.3280019206	1006	319	738
BCN	JFK	1076601.1075156648	333	73H	763
BDA	JFK	121945.84797726899	73H	73H	738

CBSA Opportunity Highlights

Delta Air Lines

Top CBSA corridors

Route	Source CBSA Name	Destination CBSA Name	ASM	Total Seats	Performance Score
ATL-FCO	Atlanta-Sandy Springs-Roswell, GA	non-US	1414966.4958481206	281206	0.7195949521108074
FCO-ATL	non-US	Atlanta-Sandy Springs-Roswell, GA	1414966.4958481206	281206	0.7195949521108074
AMS-PDX	non-US	Portland-Vancouver-Hillsboro, OR-WA	1406000.9782281781	281781	0.7152845580543193
PDX-AMS	Portland-Vancouver-Hillsboro, OR-WA	non-US	1406000.9782281781	281781	0.7152845580543193
AMS-SEA	non-US	Seattle-Tacoma-Bellevue, WA	1373035.2575231902	281902	0.6994495040415195

Suggested CBSA opportunities

Proposed Source	Proposed Destination	Source CBSA	Destination CBSA	Reference Route	Opportunity Score
YEG	PWM	non-US	Portland-Vancouver-Hillsboro, OR-WA	AMS-PDX	0.429
ATL	YEG	Atlanta-Sandy Springs-Roswell, GA	non-US	ATL-FCO	0.426
YEG	ATL	non-US	Atlanta-Sandy Springs-Roswell, GA	FCO-ATL	0.426
\N	YHZ	Portland-Vancouver-Hillsboro, OR-WA	non-US	PDX-AMS	0.426
YEG	FTY	non-US	Atlanta-Sandy Springs-Roswell, GA	FCO-ATL	0.425
YEG	\N	non-US	Portland-Vancouver-Hillsboro, OR-WA	AMS-PDX	0.406
\N	YEG	Portland-Vancouver-Hillsboro, OR-WA	non-US	PDX-AMS	0.406
YEG	ROW	non-US	Atlanta-Sandy Springs-Roswell, GA	FCO-ATL	0.394
\N	YOW	Portland-Vancouver-Hillsboro, OR-WA	non-US	PDX-AMS	0.393

Proposed Source	Proposed Destination	Source CBSA	Destination CBSA	Reference Route	Opportunity Score
ATL	YHZ	Atlanta-Sandy Springs-Roswell, GA	non-US	ATL-FCO	0.388

American Airlines

Top CBSA corridors

Route	Source CBSA Name	Destination CBSA Name	ASM	Total Seats	Performance Score
ABE-CLT	Allentown-Bethlehem-Easton, PA-NJ	Charlotte-Concord-Gastonia, NC-SC	0.0	0.0	0.0
ORD-BNA	Chicago-Naperville-Elgin, IL-IN	Nashville-Davidson-Murfreesboro-Franklin, TN	0.0	0.0	0.0
OMA-ORD	Omaha, NE-IA	Chicago-Naperville-Elgin, IL-IN	0.0	0.0	0.0
OMA-PHX	Omaha, NE-IA	Phoenix-Mesa-Chandler, AZ	0.0	0.0	0.0
ONT-DFW	Riverside-San Bernardino-Ontario, CA	Dallas-Fort Worth-Arlington, TX	0.0	0.0	0.0

Suggested CBSA opportunities

Proposed Source	Proposed Destination	Source CBSA	Destination CBSA	Reference Route	Opportunity Score
ABE	USA	Allentown-Bethlehem-Easton, PA-NJ	Charlotte-Concord-Gastonia, NC-SC	ABE-CLT	0.0
ABE	CCR	Allentown-Bethlehem-Easton, PA-NJ	Charlotte-Concord-Gastonia, NC-SC	ABE-CLT	0.0
ESN	CLT	Allentown-Bethlehem-Easton, PA-NJ	Charlotte-Concord-Gastonia, NC-SC	ABE-CLT	0.0
MDW	BNF	Chicago-Naperville-Elgin, IL-IN	Nashville-Davidson-Murfreesboro-Franklin, TN	ORD-BNF	0.0
MDW	FKL	Chicago-Naperville-Elgin, IL-IN	Nashville-Davidson-Murfreesboro-Franklin, TN	ORD-BNF	0.0
MDW	\N	Chicago-Naperville-Elgin, IL-IN	Nashville-Davidson-Murfreesboro-Franklin, TN	ORD-BNF	0.0
OMA	MDW	Omaha, NE-IA	Chicago-Naperville-Elgin, IL-IN	OMA-ORD	0.0
OMA	UGN	Omaha, NE-IA	Chicago-Naperville-Elgin, IL-IN	OMA-ORD	0.0
OMA	CGX	Omaha, NE-IA	Chicago-Naperville-Elgin, IL-IN	OMA-ORD	0.0
OMA	LUF	Omaha, NE-IA	Phoenix-Mesa-Chandler, AZ	OMA-PHX	0.0

Next Steps

- Run `python3 main.py --airline AIRLINE1 --airline AIRLINE2` for interactive comparisons.
- Seed CBSA data via `python3 main.py --build-cbsa-cache`.
- Use `scripts/showcase.py` for a quick CLI preview.