Airline Route Optimizer Report

Auto-generated using scripts/report.py.

Airlines showcased: Delta Air Lines, American Airlines

Network Snapshots

Delta Air Lines

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

American Airlines

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

Competing Route Overlap

| Source | Dest | deltalines | american |
|--------|-------------|------------|----------|
| ATL | CLT | 0.0 | 0.0 |
| ATL | DFW | 0.0 | 0.0 |
| ATL | $_{ m LHR}$ | 0.0 | 0.0 |
| ATL | MIA | 0.0 | 0.0 |
| ATL | ORD | 0.0 | 0.0 |

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 | 1414966.495 | 8428112016 | 0.7195949521108074 |
| FCO-ATL | non-US | Atlanta- Sandy Springs- Roswell, | 1414966.495 | 8428112016 | 0.7195949521108074 |
| AMS-PDX | non-US | Portland- Vancouver- Hillsboro, OR-WA | 1406000.978 | 2 73478 1 | 0.7152845580543193 |
| PDX-AMS | Portland- Vancouver- Hillsboro, OR-WA | non-US | 1406000.978 | 2 728478 1 | 0.7152845580543193 |
| AMS-SEA | non-US | Seattle- Tacoma- Bellevue, WA | 1373035.257 | 5 323 39 0 2 | 0.6994495040415195 |

Suggested CBSA opportunities

| Proposed Source | Proposed Destina- tion | 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 |

| Proposed Source | Proposed Destina- tion | Source CBSA | Destination CBSA | Reference Route | Opportunity Score |
|--------------------|------------------------------|--|---|--------------------|----------------------|
| 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 |

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- | Chicago- | Nashville- | 0.0 | 0.0 | 0.0 |
| BNA | Naperville- Elgin, IL-IN | Davidson–Murfreesboro–Franklin, TN | | | |
| 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 |

| Route | Source CBSA Name | Destination CBSA Name | ASM | Total Seats | Performance Score |
|-------------|--|---|-----|----------------|----------------------|
| ONT- DFW | Riverside- San Bernardino- Ontario, CA | Dallas- Fort Worth- Arlington, TX | 0.0 | 0.0 | 0.0 |

Suggested CBSA opportunities

| Proposed Source | Proposed Destina- tion | 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 | BNA | Chicago- Naperville- Elgin, IL-IN | Nashville- | ORD- u EfNeA sboro-F | 0.0 Tranklin, |
| MDW | FKL | Chicago- Naperville- Elgin, IL-IN | Nashville- Davidson-M TN | ORD- u EfN:A sboro–F | 0.0 'ranklin, |

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.