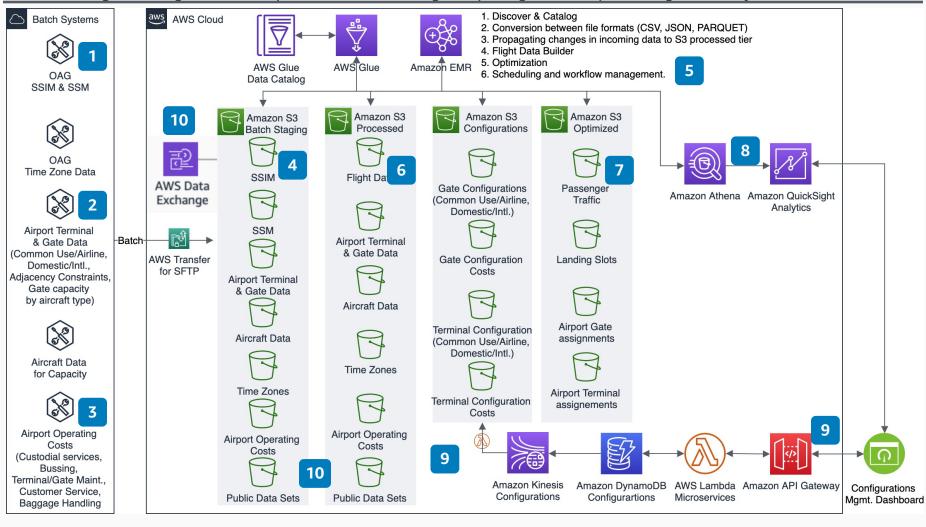
Airport Terminal Optimizer

For airports with multiple terminals, use schedules published to OAG (up to 330 days in the future), operating costs, and terminal and gate configurations to optimize terminal and gate openings when experiencing drastically reduced schedules.



- Airline schedules published to OAG provide the latest daily arrivals and departures at each airport.
- Each airport provides terminal and gate configurations, such as airline specific vs. common use, domestic vs. international, gate capacity by aircraft type, and adjacency constraints.
- Each airport provides airport operating costs by terminals and airport level costs.
- 4 All batch inputs, like SSIM (schedule files), SSM (updates to schedules), configurations and operating costs are loaded into a batch staging bucket in **Amazon S3**.
- Use **AWS Glue** and **Amazon EMR** to discover, catalog, process inputs, and create the processed data in **Amazon S3**. These services process batch data to create the flight data from SSIM and SSM files and PARQUET format for all the other data.
- Flight data is created by converting the schedule files into individual flights.
- Hourly and daily passenger traffic, and landing slots by hour are created based on flight data. Optimized airport terminal and gate assignments are created based on terminal and gate configurations and operating costs.
- Visualization and reports are provided using ondemand Amazon Athena and Amazon QuickSight.
- Optionally, build a configuration dashboard with microservices using Amazon API Gateway, AWS Lambda, and Amazon DynamoDB to collect changes to configurations and use these configurations to create what-if-analyses for gate and terminal assignments.
- Leverage the public data sets available on AWS Data Exchange to enhance the decision making.

