





FlightStats Data and Platform



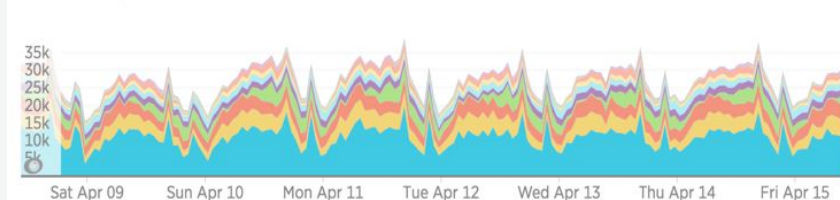
Who is FlightStats?

FlightStats is the leading provider of global real-time flight status data.

- Over 500 sources of data
- Daily ingress
 - ~15M flight events
 - ~260M aircraft positions
 - ~1M PNRs
- Daily egress
 - ~2M FlightStats.com requests
 - ~1M mobile app requests
 - ~15M Flex API requests
 - ~1.5M flight/trip notifications

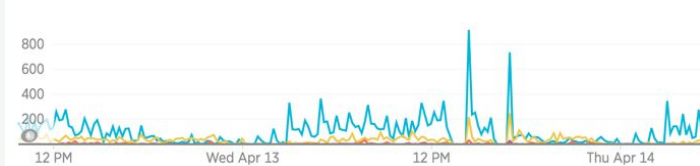
Direct Data Feed Volume By Hour

Since 1 week ago



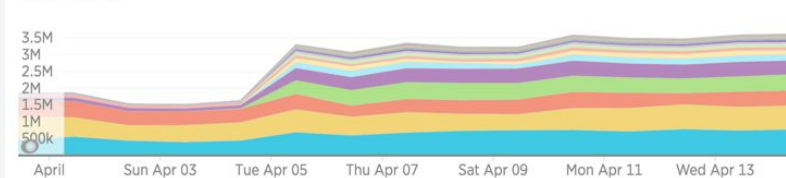
New Alerts Delivered (TAD)

Since 3 days ago

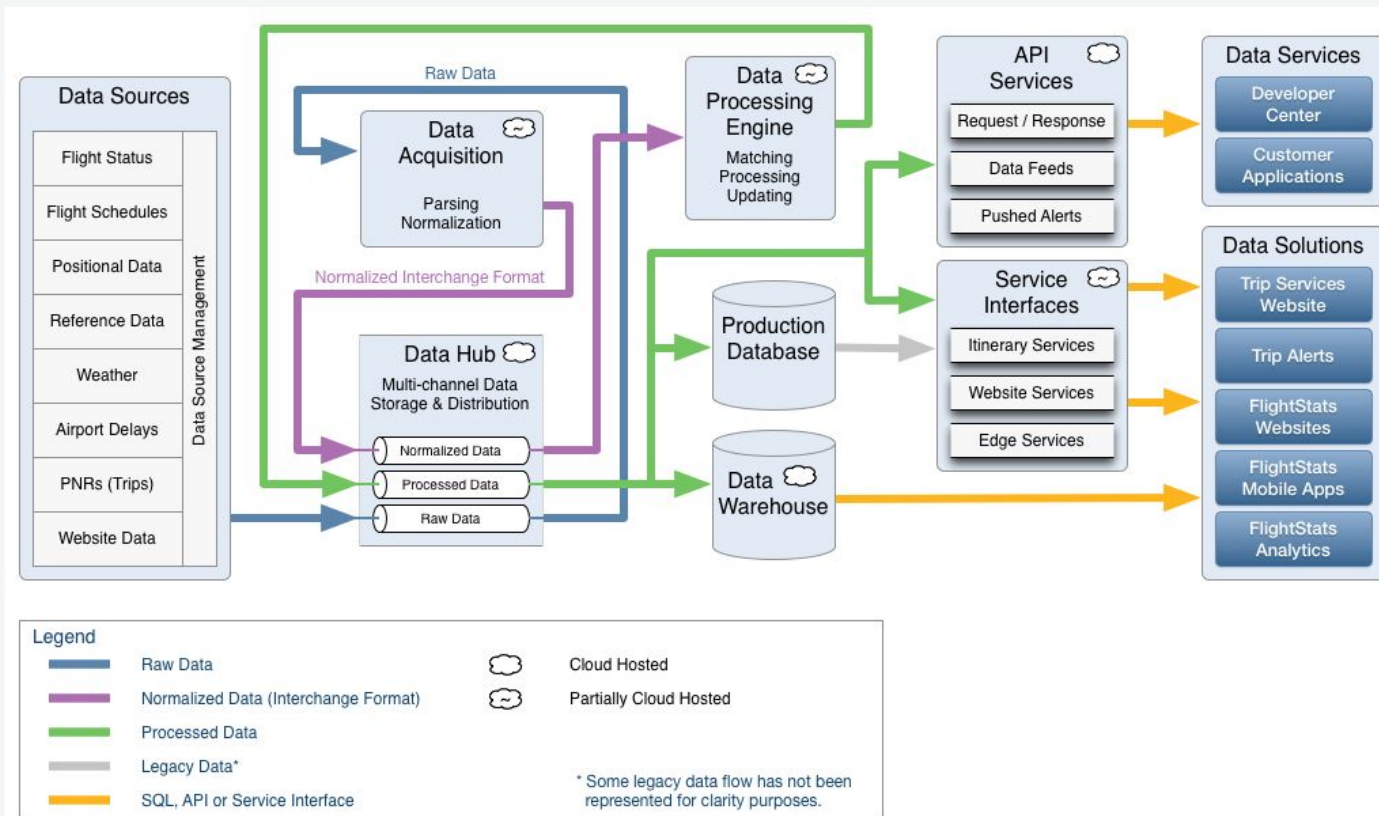


Flight Status API Requests

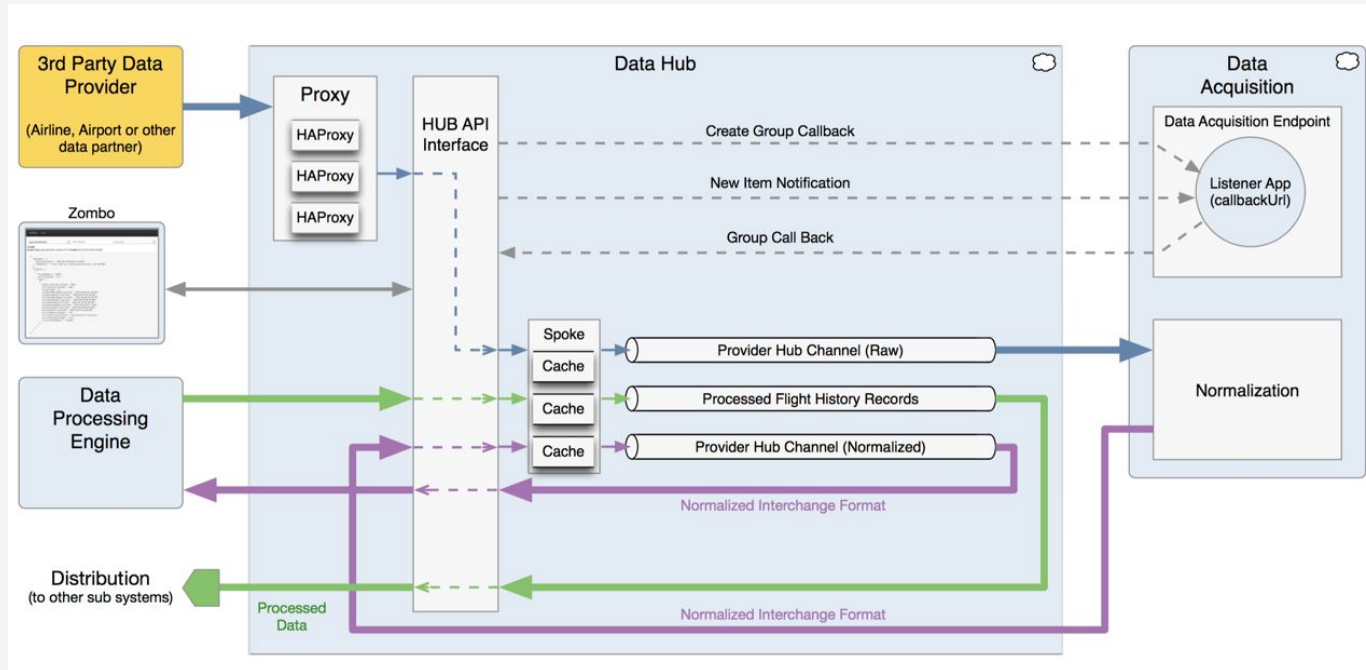
Since 15 days ago



Data Pipeline



Object storage based, scalable, highly available, multi-channel data queuing and eventing system.



Open Source: <https://github.com/flightstats/hub>

Collected and Aggregated Data (FLIFO)



Gate Departure



Gate Arrival



Runway
Departure



Runway Arrival



In-flight
Positional
Tracking



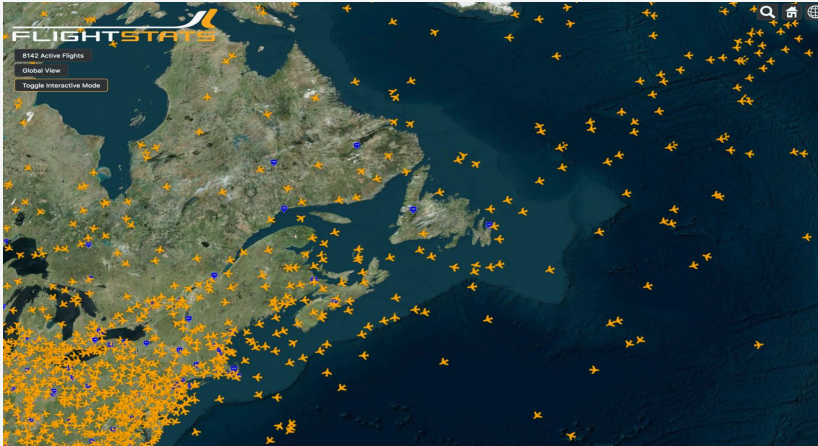
Special Incidents



Delay Prediction

FLIGHTSTATS								
Airport SFO		Date 2016-04-15 < Hour > 00:00						
Flight	Route	P24	P12	P8	P4	P2	PCurrent	Current Status
OO 5449	SFO -> BOI		On time	On time	On time	On time	On time	Arrived-On time
UA 768	SFO -> BOS		On time	On time	On time	On time	Delayed	Departed-Delayed
OO 5920	SFO -> BUR		On time	On time	On time	On time	On time	Arrived-On time
UA 1679	SFO -> CUN				On time	On time	On time	Departed-On time
VX 1	SFO -> DCA			On time	On time	On time	On time	Departed-On time
UA 2028	SFO -> DEN	On time	On time	On time	On time	On time	On time	Arrived-On time
VX 860	SFO -> DEN	On time	On time	On time	On time	On time	On time	Arrived-On time
OO 5567	SFO -> DFW	On time	On time	On time	On time	On time	On time	Departed-On time
AA 36	SFO -> DFW	On time	On time	On time	On time	On time	On time	Departed-On time
OO 5632	SFO -> EUG		On time	On time	On time	On time	On time	Arrived-On time
VX 174	SFO -> EWR		On time	On time	On time	On time	On time	Departed-Delayed
UA 233	SFO -> EWR		On time	On time	On time	On time	On time	Departed-Delayed
VX 340	SFO -> FLL			On time	On time	On time	On time	Departed-Delayed
VX 51	SFO -> HNL		On time	On time	On time	On time	On time	Departed-On time
HA 11	SFO -> HNL							Departed-On time
UA 2146	SFO -> IAH							Departed-On time
DL 444	SFO -> JFK		On time	On time	On time	On time	On time	Departed-On time
AA 164	SFO -> JFK		On time	On time	On time	Disrupted	Disrupted	Scheduled-Disrupted

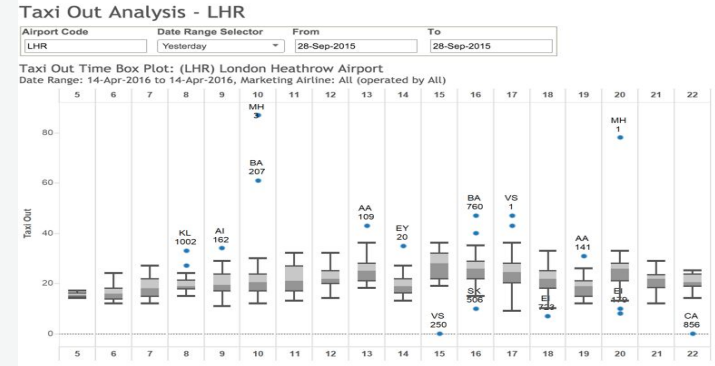
Synthetic Positions



Flight Notifications



- Data warehouse with 6 Years of historical flight data
- Analytics Products
 - Airline competitive analysis
 - Airline route analysis
 - Airport operations analysis
 - On time performance metrics



Route Grouping	Route Sub Grouping	Market	Route	2016			
				January	February	March	April
Europe	North America	AMS -> PHL	AMS -> PHL	83.33	80.00	88.46	61.54
		BCN -> NYC	BCN -> JFK	87.50	80.95	75.86	66.67
		BCN -> PHL	BCN -> PHL			0.00	45.45
		BCN -> QMI	BCN -> MIA	45.45	38.10	65.52	57.14
		BRU -> PHL	BRU -> PHL	72.73	71.43	94.12	
		BSL -> NYC	ZRH -> JFK	66.67	68.75	74.07	69.23
		DUB -> NYC	DUB -> JFK			50.00	33.33
		DUB -> PHL	DUB -> PHL	81.82	83.33	90.32	78.57
		FRA -> CLT	FRA -> CLT	100.00	85.71	96.77	100.00
		FRA -> PHL	FRA -> PHL	70.00	90.48	96.00	92.31

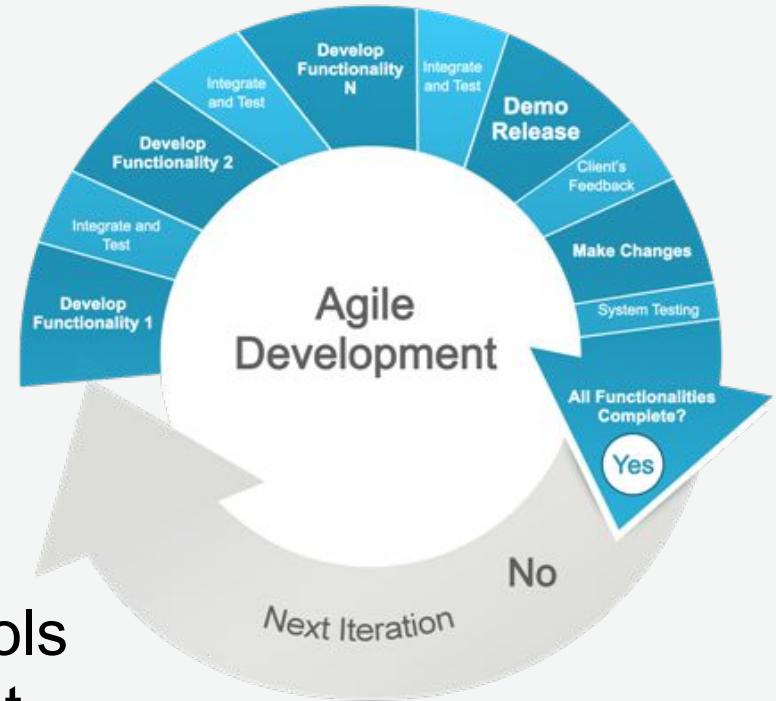




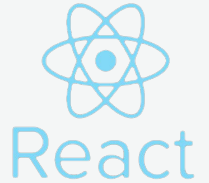
- Resources hosted in our private data center and with Amazon Web Services (AWS)
 - Core data processing and service layer resides in the private data center
 - API endpoints that require low latency connections live in AWS
- Private infrastructure virtualized with VMWare



- Agile development
 - Small, fast teams
 - Product centric
 - Customer interactive
 - Semi-autonomous
- Automate everything
- Measure everything
- Total system awareness
- Industry best practices and tools
- Recruit and hire the best talent



- Java 8 backend
- Node.js micro-service edge layer
- PostgreSQL, MongoDB databases
- Web - HTML5, React, Redux, Elasticsearch
- Mobile - iOS/Android



PostgreSQL





- <http://flightstats.com>
- Data for your apps: <http://developer.flightstats.com>
- The Hub: <https://github.com/flightstats/hub>
- email: chad@flightstats.com