



Aireon's Update ICAO SAM/IG/29

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Sales

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Overview

ORIGIN

Aireon created in 2011 to provide global, real-time air traffic surveillance, regardless of location

CONSTELLATION

Cutting-edge constellation with Aireon's ADS-B receivers on each satellite, completed in January 2019

OPERATIONAL

- All 66 Aireon ADS-B payloads active and operational
- Over 22B ADS-B position messages received each month

ATS

- 20 ANSPs Representing 40 countries have deployed Aireon's ADS-B.
- ~ 50% of the Global Airspace Operational

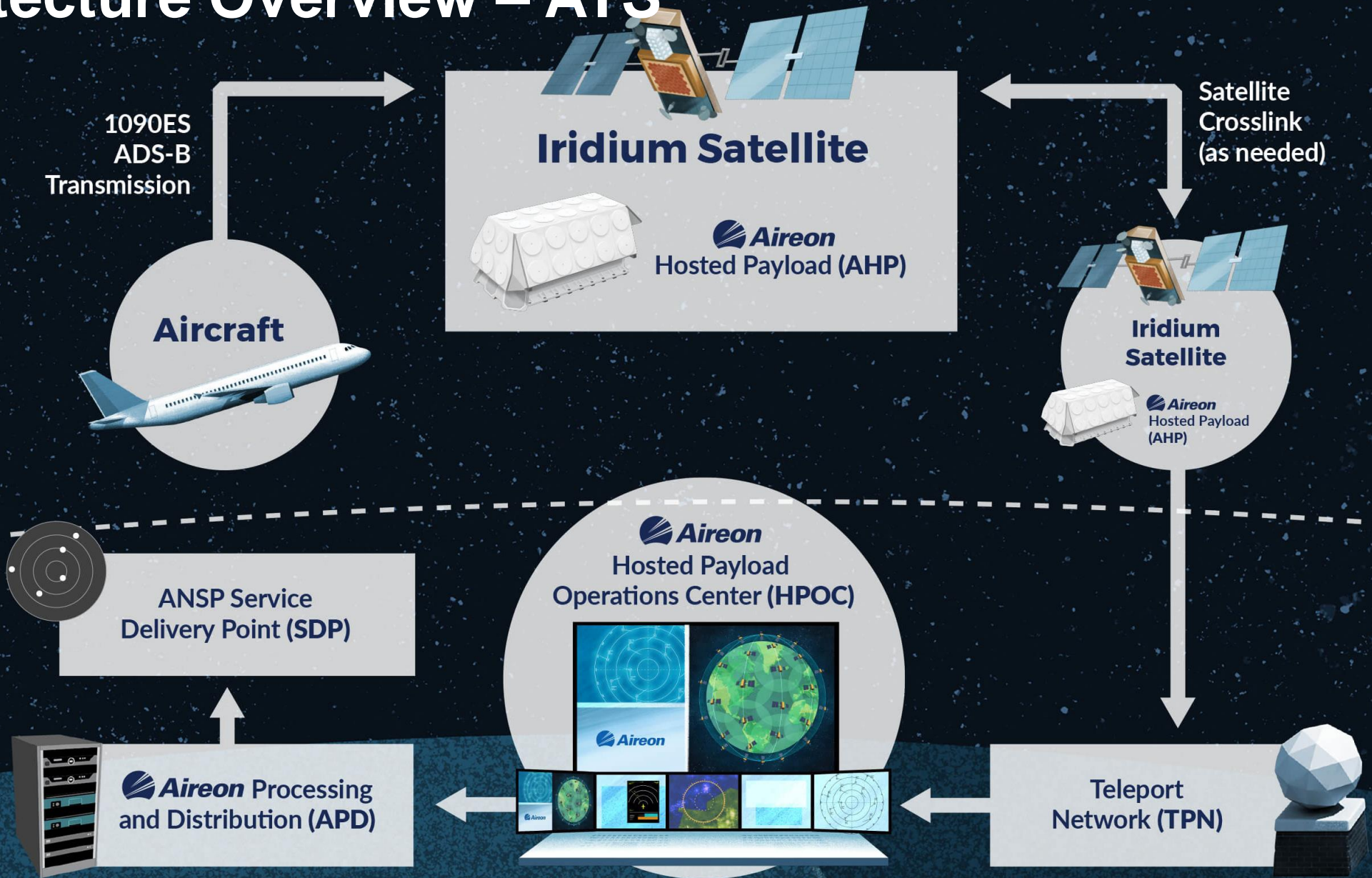
CDS

Launch of new products and solutions tied to customer needs:

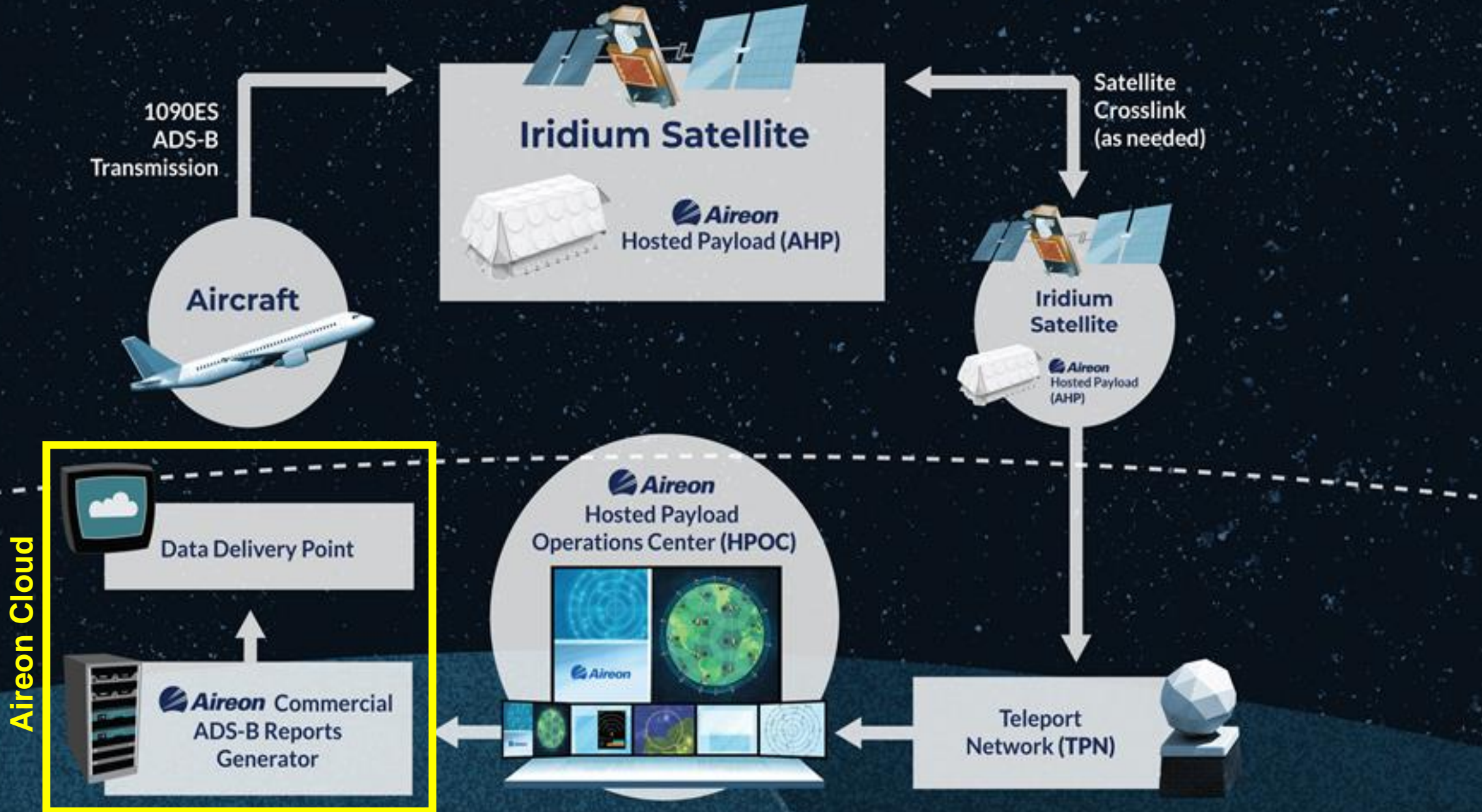
Data Products
Platform Products



Architecture Overview – ATS



Architecture Overview – Commercial Data Service



Key Attributes



Global:

Coverage from floor to 127,500 feet

High Fidelity:

Aircraft update intervals:
Core System: 700ms
Commercial System: 4s

Low Latency:

Better than 5 seconds 99th
Percentile (1.5s in most
cases)

High Availability:

99.5%+
end-to-end system



Resilient:

Overlapping satellite
coverage and on-orbit
spares



Historical:

Complete dataset starting
April 2019



Focused:

125W Diverse ADS-B
Equipped Aircraft



Trusted:

Data architecture includes
full encryption and anti-
spoofing capabilities



Sample View



Aireon's Commercial Data Services

Data PRODUCTS

High fidelity APIs providing customers with access to Aireon's Space-based ADS-B fused with contextual data sources and advanced analytical products.

Platform PRODUCTS

Immersive capability, powered by the Aireon Portal, providing customers access to Aireon's Aviation Platform to interact and engage with Aireon's data.



Data Products



AireonSTREAM

Airspace of Interest
(AOI)

Tails of Interest
(TOI)

Global



AireonFLOW

Data Stream

Integration with
ATFM Platform

Strategic Flow
Monitoring



EUROCONTROL AireonFLOW





Live Search

Rapid Access to
Aircraft Position
Products

Query Tool

Aircraft Trajectory
Products

Log Book

Event-based Products

Platform Products



AireonLOCATE

SAR

ANSPs

Operator



AireonLOCATE



FL280
FL278
FL265
FL248
FL232
FL221

Type in Any Aircraft ID or 24-bit address

ICAO Address or Aircraft ID

Locate an aircraft by ICAO Address or ICAO Aircraft ID from the last 5 days.
This functionality is just for ADS-B 1090MHz OUT transponders

ICAO 24-bit address / Hex Code

Enter value The unique identity allocated to an individual aircraft or registration

OR

ICAO Aircraft ID

Target, aircraft or vehicle identification in 8 characters as reported by the target

FL162
FL147
FL132
FL118
FL106
FL097
FL083
FL084
FL082
FL077
FL078
FL074

Receive Report of Last 15-minutes of Flight

Search Criteria: ICAO 3C6571



Timestamp	ACID	Mode 3/A	Latitude	Longitude	FL	Speed	Heading
2022-05-12 17:41:53 UTC	DLH594	413	05° 39' 21" N	007° 02' 00" E	FL074	288.0	176
2022-05-12 17:41:49 UTC	DLH594	413	05° 39' 42" N	007° 01' 59" E	FL074	288.0	176
2022-05-12 17:41:45 UTC	DLH594	413	05° 40' 02" N	007° 01' 57" E	FL075	288.0	176



Image © 2022 Maxar Technologies
Image Landsat / Copernicus



Event Based

Monitoring and Alert

PAPR

IPV / GPS

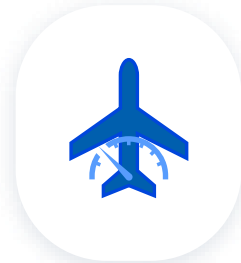
SDI



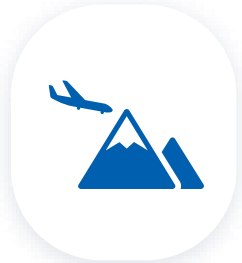
Real-Time Safety Analytics



Risk of Runway Excursion



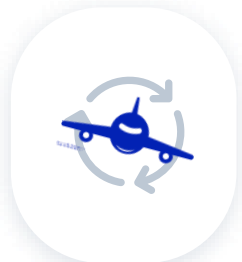
Loss of Thrust



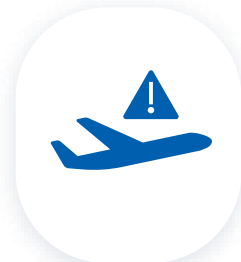
Risk of Collision with Terrain



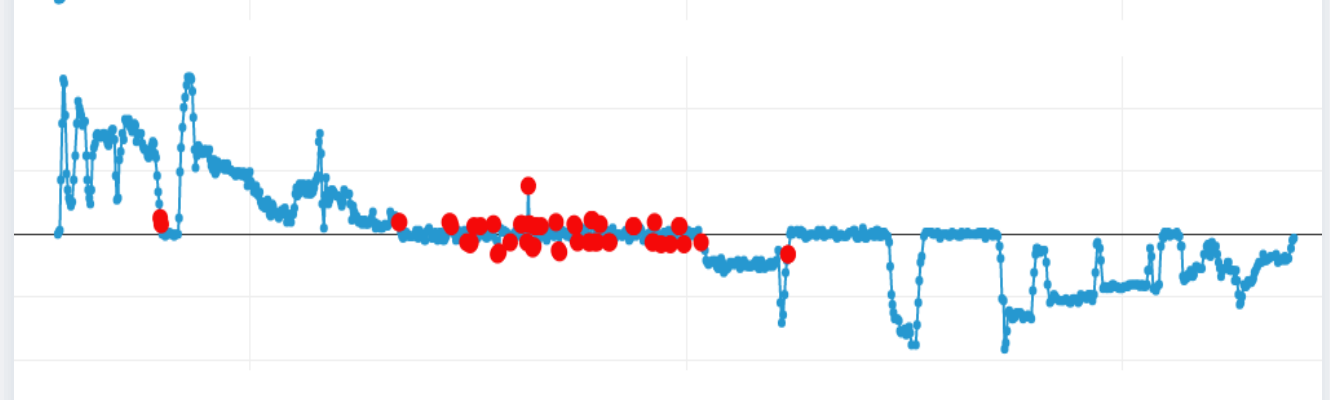
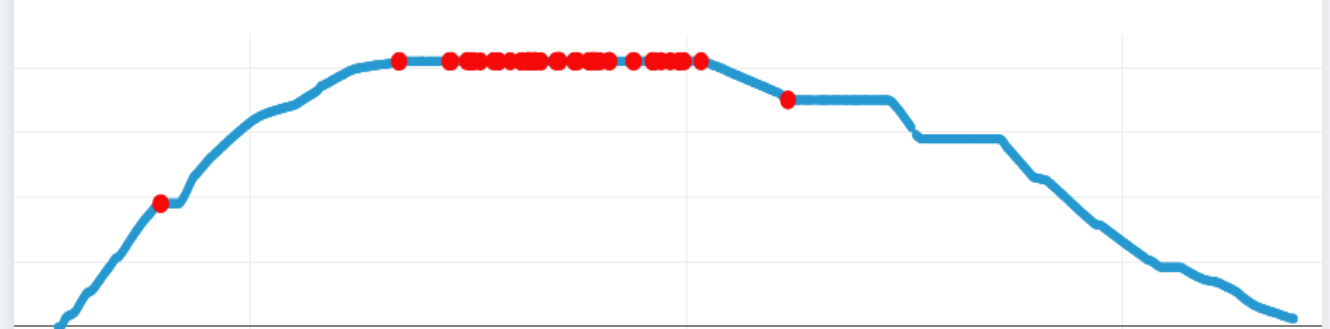
Rapid Altitude Change



Unusual Aircraft Attitude/Speed



Flight Emergency Alerts



Safety Metric Sharing and Dashboards

Approach and Landing Risk

- Missed Approach
- Unstable Approach
- Long Landing
- Rejected Take-off
- Risk of Runway Overrun

Procedural Risks

- Similar Callsign
- Altitude Deviations
- Airspace Incursions
- Approach Overshoot

Collision Risk

- Loss of Separation
- Runway Incursion
- Converging Procedures
- TCAS Alerts
- TAWS Alerts



Thank You

Aireon.com

AIR TRAFFIC ACCESS LINK: (valid until Jun 2023)

<https://traffic.aireon.com/g/5de72604-08c5-4ea0-82f6-32f6b2f0b939/0>

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