

ICAO in the Cloud

Marco Merens

Acting Chief Integrated Safety Analysis

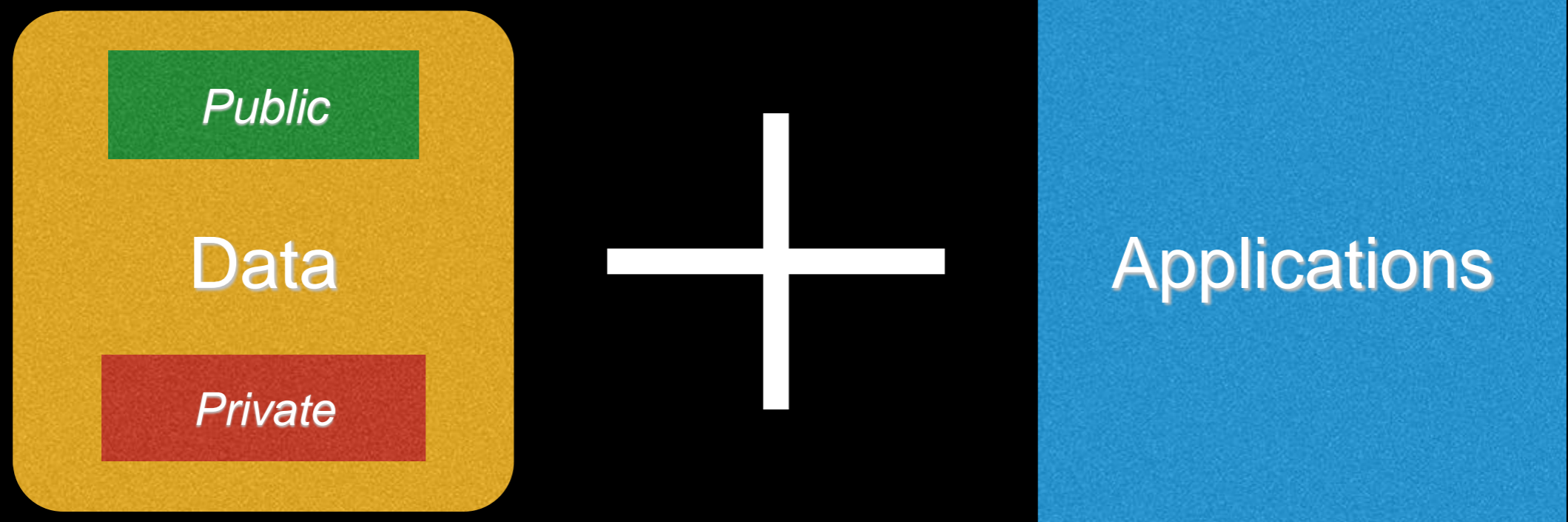
Air Navigation Bureau / ICAO

Why go cloud?

Its faster, scales better and is more flexible than in-house infrastructure



What is "cloudable"?



Cloudability Principles

- 1. What comes from the cloud, can stay in the cloud**
- 2. What comes from in-house**
 - A. should stay in-house if private, or**
 - B. can be synced with the cloud if public**

In-House

Data

Basic UI



Create
Read
Update
Delete



Syn
c



Cloud

Data

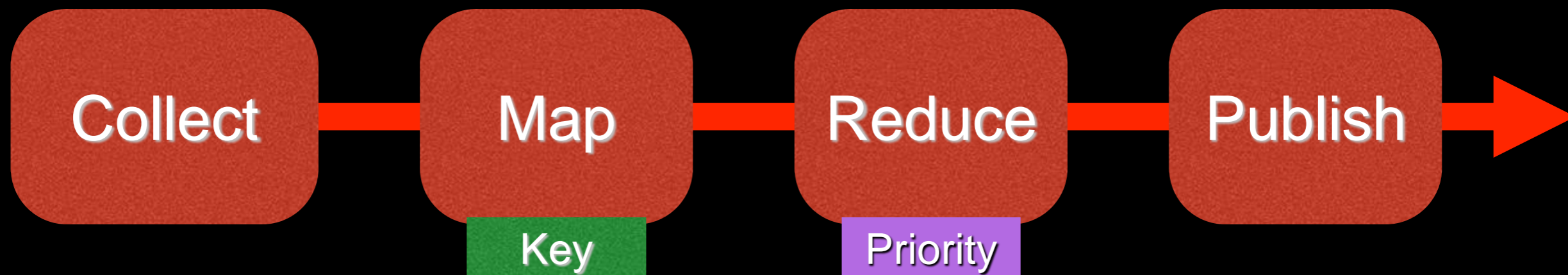
Fancy UI



Read



<div><div><div></div></div><div><div></div></div></div>	<div>Mogadishu Somalia</div>	<div>FOKKERF50 <div></div><div>Jubba Airways Somalia</div></div>	<div>Landing Accident</div>	<div>RS</div>
<div><div><div>In-House synced</div><div><div></div></div></div><div><div>Cloud</div><div>Cloud</div><div>Cloud</div></div></div>	<div><div>Narratives</div><div>ADREP: A Fokker 50 aircraft operated by Jubba Airways inbound from Galkayo to Mogadishu sustained</div><div>ASCEND: The aircraft apparently veered to the right and ran off the right side of the runway on landing at Mogadishu International Airport. After leaving the runway the aircraft ran down a small embankment and its nose/forward fuselage impacted a concrete perimeter wall. The left main undercarriage collapsed and the left wing/engine struck the ground. The 24 passengers and crew suffered no injuries in the accident which happened in daylight (1425L). The aircraft was operating a domestic flight from Galkayo.</div><div>ASN: A Fokker 50 passenger plane, operating on a flight for Jubba Airways, sustained substantial damage in a runway excursion accident at Mogadishu International Airport (MGQ), Somalia.The airplane performed flight 3J715 from Galkayo Airport (GLK) to Mogadishu. Upon landing the airplane suffered a runway excursion. It went down a small embankment and collided with a concrete perimeter fence. The right hand main landing gear collapsed, the nose was crushed and the forward fuselage sustained structural damage.</div><div>AVHERALD: A Jubba Airways Fokker 50, registration 5Y-BYE performing flight 6J-715 from Galkayo (Puntland/Somalia) to Mogadishu (Somalia) with 24 people on board, landed on Mogadishu's runway 05 at about 10:30L (07:30Z), however, the right main gear collapsed causing the aircraft to veer right off the runway. The aircraft came to a stop in a ditch receiving additional damage to nose section and right wing and right engine/propeller. There were no injuries, the aircraft sustained substantial damage.Airport officials reported the aircraft had safely landing when during rollout the landing gear collapsed and the aircraft arriving from Galkayo went off the runway. All passengers disembarked in good condition.No weather data are available for Mogadishu (neither Metars nor local weather station data), photographic evidence suggests clear weather however (winds unknown).5Y-BYE shortly after the runway excursion (Photo: bizjets101):5Y-BYE being recovered suggesting right wing fractured (Photo: Neil Wigan):</div></div>			



Cloud Compute Example



Accident Rate

World, 2014 per mil.

2.6 (-10.3%)

Scheduled commercial flights only
Last updated 2014-10-15



Fatal Accidents

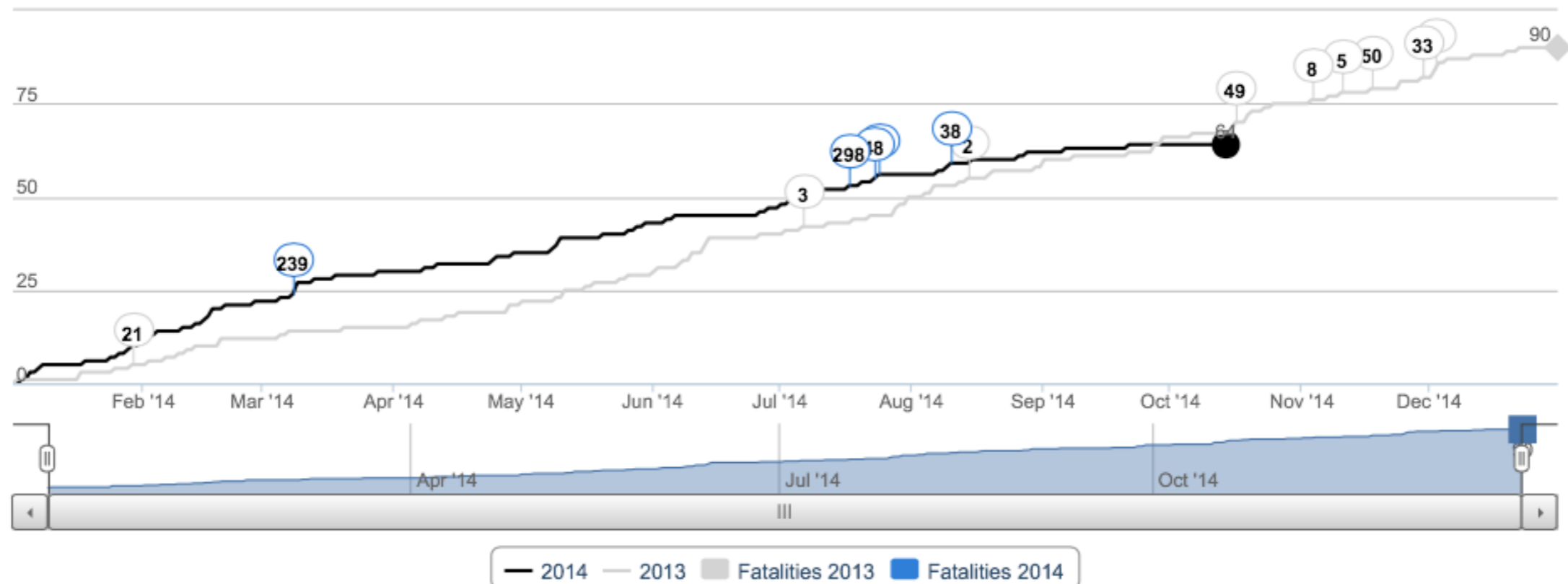
World, 2014

5 (+2)

Scheduled commercial flights only
Last updated 2014-10-15

Accidents in World

Scheduled commercial above 5700 kg, Cumulative daily totals, 2014 versus 2013



Realtime Stats

The cloud makes daily updated statistics possible

Our Plan

1. Manage ALL public data in-house (or cloud VPN) in a central data mart
2. Generate meaningful information sets (cloud computed or local)
3. Synchronize information sets with clouded applications
4. Access all information through cloud APIs