



CDM

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Decision Making

Overview

- Current Tasks
 - Task #90: NTML Data Use and Analysis
 - Task Task #95: Flight Matching
 - Task #105: Industry Submission of ETE



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CAT Task #90: NTML Data Use and Analysis

- CAT will conduct the following activities:
- Assess current operational capabilities, which utilize NTML data.
- Assess NextGen capabilities also expected to access NTML information.
- Provide a documented analysis which describes the tools using NTML, the information accessed and findings realized resulting in shortfalls or benefits.
- Engage with applicable stakeholders to provide input to the assessment and validation of the results.
- Generate a report on the operational shortfalls, recommendations including documentation of resources used in conducting this analysis.



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CAT Task #90: NTML Data Use

- Task Progress:
 - CAT identified APREQ restrictions from NTML are not in the SWIM data feed (Limited access after R14 deployment)
 - CAT recommends testing of NTML MIT entries and the results within the SWIM TFM Flight and Flow feed
 - CSG approved participation on this task by TMC(s) from the field
 - Standardization of NTML entries is key



CAT Task #95: Flight Matching

- CAT will conduct the following activities:
- The CDM Automation Team (CAT) will analyze current flight matching processes within TFMS and make recommendations for improving flight matching.
- Task Progress:
- The CAT identified TFMS logic that is creating duplicate flights as well as deleting legitimate flights
- PMO assisted CAT by providing detailed flight matching logic



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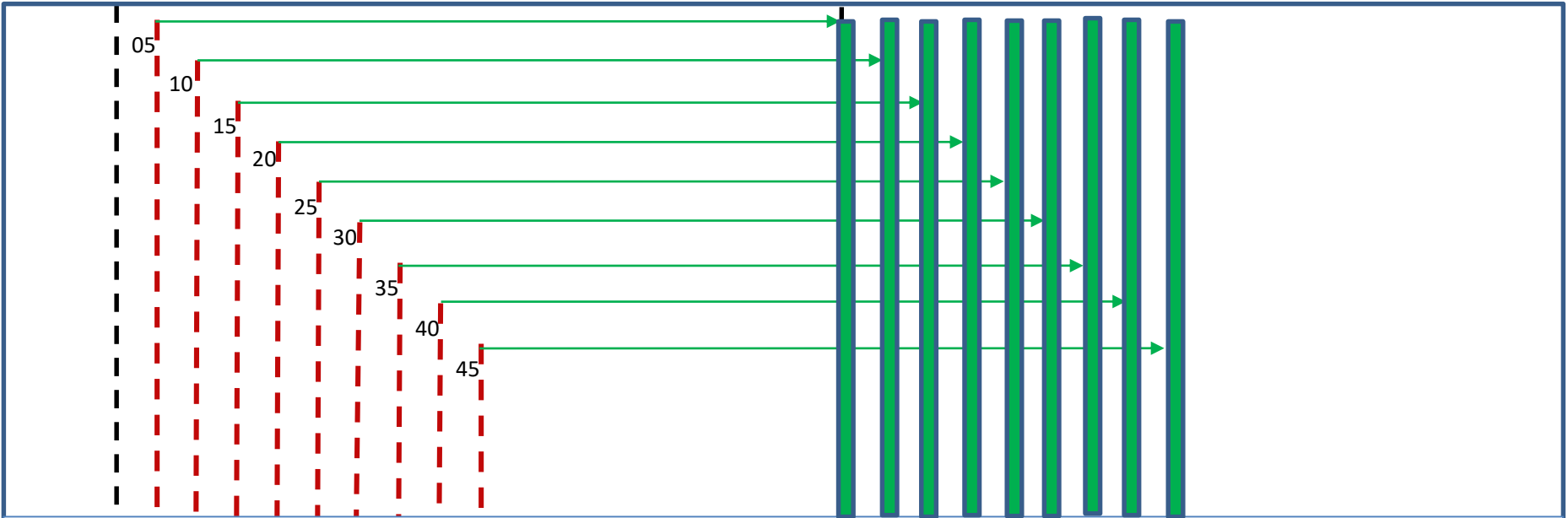
CAT Task #95: Flight Matching

- The OAG schedule is stored in the schedule data base
- The schedule data base retrieval process occurs every five minutes for the next days flights

Current time
1300z

Next day time 1300z

24 hours (1440 minutes)



OAG Schedule is stored in the schedule data base (sdb)

The sdb retrieval process occurs every five minutes for the next day flights

1305z – retrieves next flights 1300-1305z



Current time

Next day time

24 hours (1440 minutes)

540 min

540 min

Late Controlled Dept 15 hrs

Early Controlled Dept 15 hrs

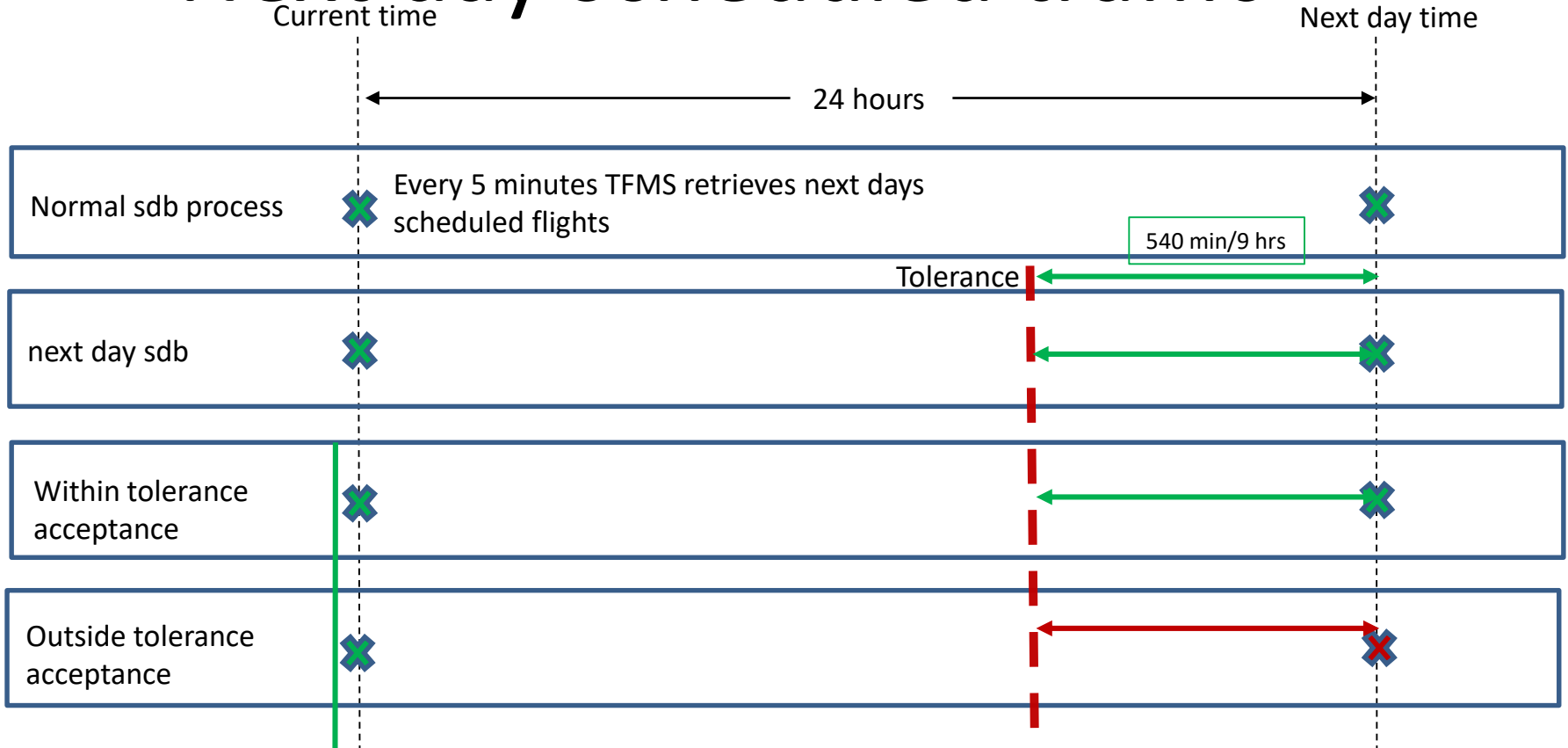
The flight matching algorithm uses 540 min (9hrs) as a tolerance for controlled flights.

Late Control Departure Time Tolerance = > 540 min.

Early Control Departure Time Tolerance = > 540 min.



Next day scheduled traffic



Flight Matching GA

ACID	IGTD	DEPT	ARRV
N123	1515z	ATW	MSN
N123	1630z	MSN	ATW
N123	2030z	ATW	SFO

Current TFMS logic will flight match both of the ATW departure legs and subsequently drop one of the flights, even though both legs are capable of operating.



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Flight Duplicates

Call Sign	IGTD	DEPT	ARRV
XYZ456	2005z	LGA	ORD
XYZ456	2025z	LGA	ORD
XYZ456	2035z	LGA	ORD

Current TFMS logic will consider of each of these flights unique due to each flight has same destination and arrival, yet IGTD is different



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Task #95 Recommendation

- Date of flight should be utilized in the flight matching rules
 - Will help manage the scheduled flight data when TMIs extend late into the next day operation
- Add an ETE (estimated time enroute) logic check to be applied for flights that have the same ACID, a different IGTD yet either the Departure point or Arrival point matches.
 - If a flight can depart point A to B, and B to A and then A to C, all legs should be in TFMS
 - This will also prevent duplicate flights with differing IGTDs



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Task #105: ETE Submissions

- The CAT will evaluate CDM flight operator's ability to submit and keep updated flight data
- Recommendations and findings should support Performance Data Initiative objectives such as EDCT compliance



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Task #105

- TFMS uses a hierarchy of data sources to determine ETE.
 - Historical -LRTD/A -Flight plan -Airborne estimate
- Operator historical data uses a different date range than TFMS historical.



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Task # 105 Recommendations

- LRTD/A can cause ETE inflation, which in turn, causes flights to be in the wrong time buckets in FSM.

Airlines can cease submitting LRTD/LRTA data until the flight is delayed or dispatched unless the LGTD needs to be included.

Change TFMS Logic to derive ETE from sources other than LRTD/A.



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Task #105 Recommendations

- CDM facing OIS should have access to historic FSA
- Current TFMS logic has required reroute as a lower priority than the filed flight plan.
- RBS++ Improvement
- R15 (Fall 2022) will correct issues where absence of T1/T2 causes miscalculation of ETA



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