

# On-Time-Performance & Delay Impact Management

No two delays are exactly the same. In some cases, a delay is acceptable or even desirable under specific conditions. It's not only the number of minutes which turns a late arrival into a relevant delay. Rather, the real impact on the organizations' schedule as well as implicated fuel consumptions, crew rotation etc. should be considered.

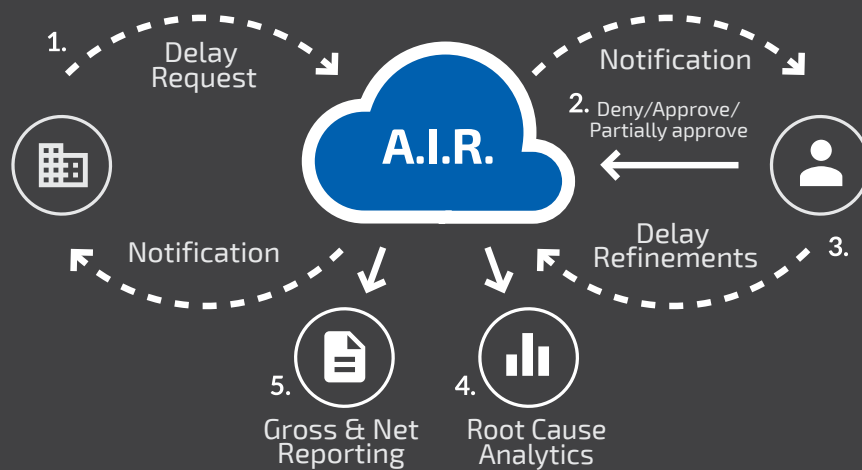
What if your aircraft is ten hours delayed, but all your cargo arrives at its final destination on time? Conversely, who is liable if a 10-minute delay, defined as being On-Time, causes 30% of the PAX to miss their connecting flights? Will you measure a station's tardiness by total sum of delayed minutes, or do you differentiate between net and gross delays, taking into consideration reactionaries or root causes? How does your organization learn from historic events, and how are the analytics results used?

aviaanalytics' On-Time-Performance / Delay Impact Management (OTP-DIM) solution allows operators to predict and control these and other aviation-scheduling situations that may arise. It visualizes the impact of a potential delay and aids economic decisions regarding additional fuel costs and/or the acceptance of a delay to serve a greater good.

## Benefits:

- Offers best-practices scheduling and delay management
- Enables conscious and proactive delay decisions
- Saves time and resources
- Offers better visibility around recurring issues
- Allows root cause analytics and follow up
- Simplifies the controllers' reaction process
- Decision support through data mining capabilities

# On-Time-Performance & Delay Impact Management



avalytics' InfoBOX gives your airline the possibility to manage planned and unplanned delays and defines handling in OTP reporting. Furthermore, data gathered about the reasons of delays (ground handling, technical issues, weather) help to understand and improve your

operations. The avalytics' OTP-solution does not just consider single flight events for reporting and analysis. It enables a complete current and historic view on the airline operations.

## How it Works

### 1. Delay Request from Network Station

- Request to delay a flight for a certain amount of time due to a specific reason
- Automatic operator notification of the request

Carrier	No	Sx	Owner	Type	Reg	DEP	ARR	DIV	STD	STA	ATD	ATA
XX	987		XX	77F	AVIA1	BRU	STR		04.11.2017 02:50	04.11.2017 04:35	04.11.2017 03:05	04.11.2017 04:40

General | Journey Log | Load Detail | Comments | Messages | DocGen | APIS | Delay | EZFW | **Delay Request** | Statistic | Crew Rest | FSUM | Ground Reports | Permit

**Station**

Edit delay request

Requested duration: 00:15 (hh:mm) Reason: 91: Load connection

Additional information: Delayed trucks due to RTA ( approved by INCC )

Name: Katrin Dreiseitel

E-Mail: kd@avalytics.aero

### 2. Delay Request Handling

- Approve, reject and adjust delay requests based on real-time dependency information
- Management of actions necessary in case of a delay
- E-mail notifications are automatically generated
- The delay request status is displayed in the InfoBOX flight overview

**occ**

Approved:  Yes  Partially  No

Approved duration: 00:15 (hh:mm)

No	DEP	ARR	Date	Ground	STD	STA	PSF	FSF
987	BRU	STR	04.11.2017	05:59	02:50	04:35	13:45	15:55
654	STR	SIN	04.11.2017	02:45	07:20	19:35	04:45	06:45
456	SIN	BKK	04.11.2017	02:00	21:35	00:05	20:05	32:05

Comments: OCC

Reply

### 3. Delay Refinement

Standard delay-information framework will be enhanced with details like:

- 1) Which flight caused a reactionary delay on an individual flight
- 2) Which flights will be affected by the delay of the actual flight
- 3) Refinement of the delay causes and assignment of responsibilities
- 4) Creation of follow-up actions

The screenshot shows a flight analysis tool interface. At the top, flight details are displayed: Carrier XX, No 085, Sx XX, Owner 77F, Reg AVIA2, DEP FRA, ARR STR, STD 04.11.2017 03:10, STA 04.11.2017 04:25, ATD 04.11.2017 04:18, ATA 04.11.2017 05:24. Below this, there are tabs for General, Journey Log, Load Detail, Comments, Messages, DocGen, APIS, Delay, EZFW, Delay Request, Statistic, Crew Rest, FSUM, Ground Reports, and Permit. The 'Delay' tab is active, showing a 'Reactionary delayed' status with a value of 68. It lists two flight events: XX158/04NOV17 STR - BRU (AVIA2) \* 93/93A: 54 Min Aircraft rotation \* 32/32A: 21 Min Loading/Unloading, and XX122/04NOV17 BRU - PVG (AVIA2) \* 93/93A: 115 Min Aircraft rotation. The interface also shows four delay categories: Delay 1 - 43: 10 Min Non scheduled maintenance, Delay 2 - 32/32D: 58 Min Loading/Unloading, Delay 3, and Delay 4. At the bottom, an 'Actions' table is visible with columns for Delay refinement, Responsible, Action Type, Description, Final outcome, Deadline, and Status.

Delay refinement	Responsible	Action Type	Description	Final outcome	Deadline	Status
Delay 1 - 43O: ACCEPTABLE	Dreisettel, Katrin	verbal communication	Verbal communication necessary	(undefined)	06.11.2017	in progress

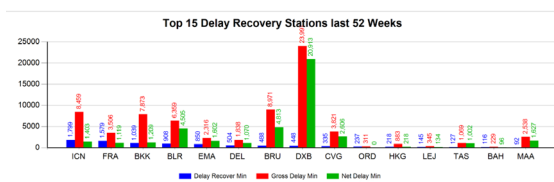
\* This is an independent process wherein the operator inputs/queries A.I.R. and examines data. The station has no involvement with or visibility into the refinement.

### 4. Root Cause Analytics & Learning Opportunities

- Flight and non-flight related root causes can be assigned to delays, along with the durations thereof.
- Gross and net delay times are calculated along with recovery efforts based on minimum turnaround times to identify real performance and critical paths.
- Recovery & Best Practice Workflow can be initiated and assigned to a specific person in the organization to track progress and ensure lessons learned.

Root Cause	Total Delay	Reactionary	Delay Info	Delay
A1514 DRS-ROT (LJLJLN)	03:10	0:2 Rights	0101A/28 Min * 18B (NIV) PROC: 01 Min	01:14
		1: A1501 SZX-ORS (LJLJLN)	4101A/18 Min * 000A/4 Min	01:00
		2: A1514 RT1-SZX (LJLJLN)	000A/18 Min	00:56
A1515 SZX-ORS (LJLJLN)	08:23	0:4 Rights	4101A/15:4 Min	06:21
		1: A1500 DRS-NCB (LJLJLN)	000B/162 Min	06:47
		2: A1503 NCB-HH (LJLJLN)	000B/202 Min	06:50
		3: A1510 HNS-ORS (LJLJLN)	01:45 Min	00:09
		4: A1515 SZX-HAN (LJLJLN)	00:45 Min	02:14
A1500 DRS-LTP (LJLJLN)	18:42	0:4 Rights	000A/157 Min * 00C (00) HMMAN: 200 Min	06:25
		1: A1500 LTP-KUL (LJLJLN)	000A/133 Min	04:35
		2: A1501 KUL-LAMA (LJLJLN)	000A/158 Min	03:19
		3: A1501 LAMA-ORS (LJLJLN)	000A/29 Min	02:28
		4: A1110 DRS-CIT (LJLJLN)	000A/48 Min	01:58

List of occurred root cause delays and reactionary affected flights.



OTP reporting suite

### 5. A.I.R. Data Distribution to Gross and Net Reporting Tools

Benchmark functions include:

#### Flight Statistics

- Define and prioritize specific information about how a flight is considered.
- Each flight can be excluded from OTP or included as not delayed (= cleared). Cancellation(s) can also be set with reason as well as Full and Partial Service Failures (FSF/PSF).

#### OTP Reporting

- Review the list of delays occurring within a given week, as well as the reasons, duration, and PSF-/FSF-/AdHoc-flags of each event.
- Service Failure Events & Flight Changes
- Delayed flights will be grouped by category and listed alongside their service failure threshold, reason, and ancillary comment information.

#### Decision Support

- Data mining algorithms to identify and cluster delay causes and context.

### Request Project Estimate

For more information or to request a project estimate contact us at:

+49 (711) 184 2653-0  
info@avialytics.aero



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*avialytics* is focused exclusively on the information value chain relevant for airlines, providing solutions for all steps along the way.

#### Contact

+49 (711) 184 2653-0  
+1 (702) 445 8457  
info@avialytics.aero  
www.avialytics.aero

#### avialytics GmbH

Im Bieth 55  
69124 Heidelberg  
Germany

#### Postal Address

König-Karl-Str. 24  
70372 Stuttgart  
Germany

Look for other avialytics solutions that are **Performing on A.I.R.** in the following categories:

- Airline Safety Analytics
- Airline Performance and Operational Management
- Airline Apps