Comprehensive Situational Awareness
Supporting fast and accurate decision making

Keep airport community informed
Movements and vehicle tracking
Integrated planning platform

FREQUENTIS
FOR A SAFER WORLD

Ensuring safe and efficient passenger flow

Airports need to respond rapidly to changing scenarios. The different operational functions within the airport must work together with better coordination to eliminate inefficiencies, uncertainties and delays. They need the ability to make smarter decisions based on accurate, up-to-the minute information shared between all parties. But this information is often obscured by pen-and-paper or locked away in multiple different systems and silos, and presented in disparate, non-intuitive ways to the decision-makers.

Successfully navigating the day of operations

Stable operations
Airport stakeholders need the ability to work together more closely and respond to fast-changing operational situations.

Predictive
The constantly changing environment requires automated re-planning and decision support for everyone to adapt to the new scenario.

Situational awareness
Airport staff members need clear, timely information on relevant events and the status of operational processes.

Costs
The industry will continue to face the perennial drive to do more with less, raising the quality and efficiency of services while controlling financial expenditures.

Sustainability
Economic limits, environmental issues, as well as public and political pressures force airports to operate more efficiently and reduce carbon footprint.

Digitization
Important data is only available on paper or is split between multiple unconnected systems and teams, making it difficult to acquire a real-time common operational picture.

Frequentis airportMAPS delivers real-time situational awareness to all members of staff on the airport. It brings together data from all relevant airport systems and links it on a map for everyone to locate aircraft, vehicles, and even wheelchairs.

airportMAPS puts the asset into context enabling every workforce member and managers to see at a glance the status of their resources and all operational processes associated with it.

Get informed about aircraft being fuelled, cleaned and stocked with catering, as well as the progress of each process versus the plan. Likewise, readout the status of a boarding gate or the situation at the security checks.

Powerful dashboards and configurable alerting, combined with business rules enables the operational managers to analyse, react and re-plan before a delay on one resource causes a snowball effect on other assets.

Available as a web application through any standard browser, airportMAPS is a modular solution that can start small and grow to encompass coming requirements.

Coordinating airport activities

Operational managers and staff are typically spread across multiple locations both on- and off-site, which is a big challenge for coordination and most communication is by radio and telephone. airportMAPS closes the information gap with an overarching, common operational picture (COP) and that shared situational awareness allows for re-planning and decision making to avoid delays and make better use of the existing resources. The data fusion from various airport systems, including AODB, RMS and A-CDM milestones enables seamless and timely coordination of processes across the whole airport.

Situational awareness for airport operations

Integration
Real-time data from across the airport on aircraft, arrivals, departure, stands, gates, ground handling, taxi, terminals, security, baggage handling, check-in counters, weather and CCTV. Connect mobile, tablet, desktop personnel.

Awareness
Data aggregation and user-centric visualization to digest and understand the overall meaning of millions of data points, keeping the focus on the relevant information. Enables fast, well-informed tactical and strategic decisions throughout a 360-degree scope.

Alert
Detect delayed or in-complete processes, resource conflicts, and current or potential safety issues before they materialize. Initiate collaborative re-planning and take proactive mitigation.

Optimising daily operations

Airport managers and staff need the most complete picture possible if they are to make optimal decisions. By providing a common operational picture adapted to the individual needs of each role, Frequentis airportMAPS gives airport operatives all the information they need to understand and respond appropriately to changing situations.

Each vehicle, resource, and asset is set into relation with the business process that defines and determines the operations.

Mobile and web-based technology allows every airport staff member to access and use the COP for their specific daily work.

Turnaround Optimization for Ground Handling

Use the data of the ground handling management system and the A-CDM information for the common operational picture even in case no aircraft tracking is available based on In/Off-block timestamps

Visualize the progress of the turnaround of each aircraft and adjust individual task times along the work process. TOBT updates are based on informed decisions that take the current situation on the airfield into consideration.
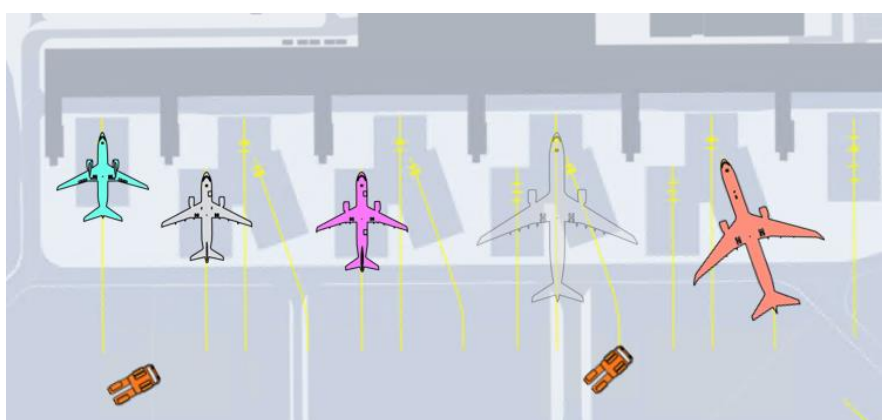

Symbolize aircraft movements with scheduled, estimated and actual A-CDM timestamps	Display turnaround process and progress based on aircraft type and task time tables	Alert deviations and adjust individual task times in case delays affect the turnaround schedule	Automatically assess impact on affected resources and flights and update TOBT if required

Customize airportMAPS

Combine all available data sources to provide ground handling staff with the operational picture possible. Even without ground tracking, A-CDM timestamps can be used to provide accurate situational awareness. airportMAPS is extendable, so that when more data sources become available, they can be seamlessly integrated.
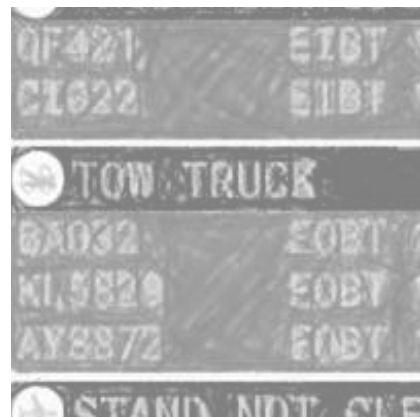
Informed decision making

Frequentis airportMAPS is the common operational picture for the airport community with all the information they need to understand and respond appropriately to the changing situations during daily operations.
Senior management monitors the high-level overviews and dashboards and uses the reporting and analytics capabilities.
airportMAPS is one of the cornerstones in the digital APOC and a major application to make use of the A-CDM data.

Clear and real-time information on important events

Coordinate activities across teams and respond fast to emerging challenges

Reduce operating costs with smart resource allocation and delay avoidance

Deliver new operational insights that help improve future planning

Boost operational efficiency and reduce carbon emissions

Analytics for impact assessment and tactical re-planning

Frequentis airportMAPS

➢ Lightweight application, data-centre-agnostic architecture available on-premises, hosted or in private clouds.

➢ Extensible, modular platform allows easy integration with existing airport operational systems, including airport operational databases, resource management- and ground handling systems and weather information systems.

➢ Open solution built on commercial off-the-shelf components, for lower risk and TCO.

➢ Intuitive user interface, universally available via web browser.

➢ Data analytics including automated pre-defined reporting in multiple formats.

➢ Backed by expert support from Frequentis.

➢ Designed for 24/7 operations.

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