

Find all ATC information on  
**One Screen**

INFOMAX  
Integrated Information  
System



  
**ADB  
SAFEGATE**

# How does the Tower Information System work?

## Are you ready?

Air traffic is on the rise but airports are not sufficiently prepared to deal with the rapid increase. A physical expansion of the airport's infrastructure is unrealistic due to a lack of space, and there are environmental regulations to consider when residential buildings are erected close to the airport. There are also other issues to consider.

Air Traffic Controllers (ATCOs) depend on various types of information to perform their daily job, including meteorological data, information from NavAids, ATIS, runway lights, stop bars etc.

The information is typically displayed on individual screens, resulting in a cluttered workspace. Using multiple displays increases the workload and may also lead to the occurrence of unsafe situations.

## The ADB SAFEGATE solution

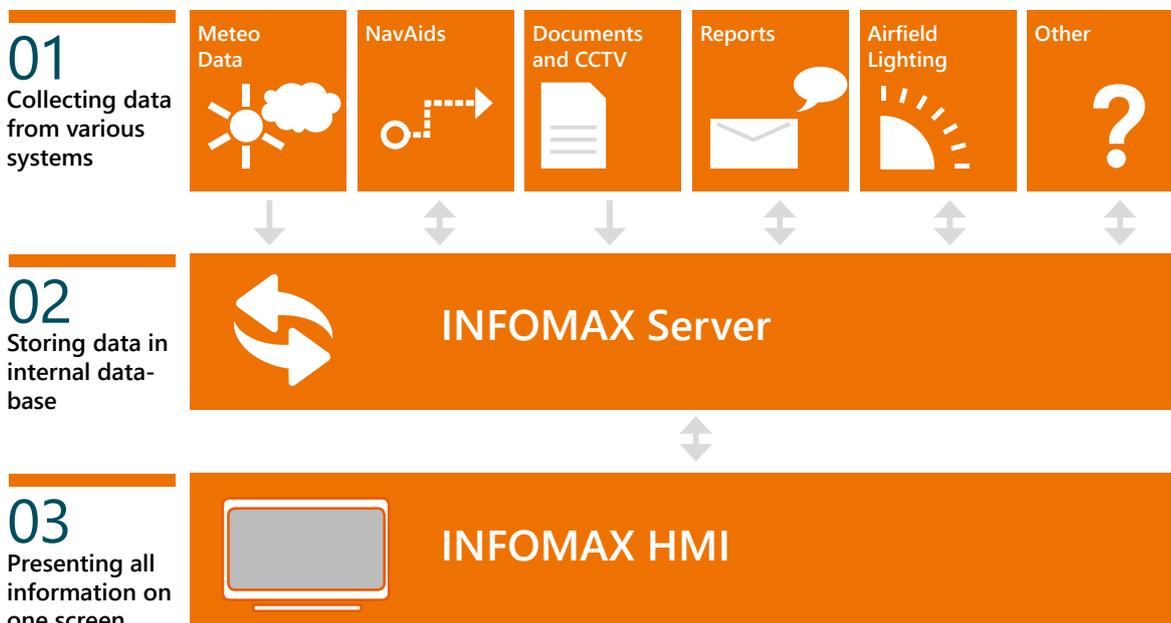
**INFOMAX** – as part of ADB SAFEGATE Tower ATM package – combines all the information mentioned above on a single display in a consistent HMI that cleans up the CWP by removing unnecessary displays, mice and keyboards.

The HMI is highly configurable; the information presented on the screen can be selected to meet all sitespecific requirements. This includes the determination whether data is shown at all and how the display looks.

The INFOMAX Server collects data from various sources such as sensors, data bases and other interfaces, stores them in a database and provides a means for a user to access and display the data on the screen. Various ways to communicate with external systems are supported, (TCP/IP, UDP, Web services, serial lines etc.). Standard protocols and data formats (AFTN/AMHS, ASTERIX, XML, JSON) are used to support exchanging data with external systems. Interfaces to external sensors/systems using proprietary data formats can be easily added. The INFOMAX server runs in a fully redundant configuration and performs data mirroring between the operational and the hot-standby server. This results in high availability, required for this safety critical application.

## INFOMAX combines information from various systems in a well-organized manner on one screen

Support for communication with a great variety of external systems (TCP/IP, web services). Standards (XML, JSON, AFTN/AMHS, ASTERIX etc.) are used as far as possible.



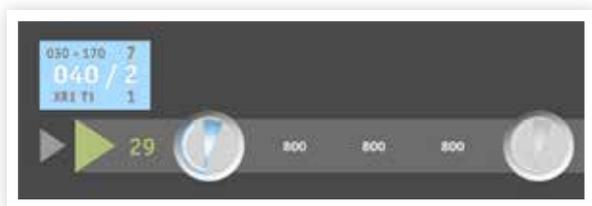
The INFOMAX HMI is fully configurable and consists of a number of pages, each of which is fully configurable. All pages can be used in single or multiple combinations. A user can easily navigate the pages using the navigator bar or by pressing hyperlink buttons on a page.

Pages (for example presentation from video cameras) can be configured as "floating" windows to be placed anywhere on the screen. Any data item can be used to indicate that the data must be delivered to pilots using a different presentation reflecting both ICAO standards and local regulations.



### Meteorological Data

INFOMAX displays all available meteorological data such as wind (including calculated cross-, head- and tailwind components), RVR, QNH, METEOSAT images, TAF, METAR/SPECI, weather radar images etc. In addition configurable alarms for critical meteorological data can be provided.

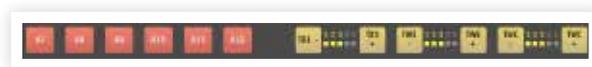


### NavAids

The NavAid status is displayed colour-coded either permanently or on a selected page according to user requirements. Detailed NavAid status information can be aggregated for a simplified representation.

### Airfield Lights

All parts of the airfield lighting can be switched directly from the INFOMAX screen. Airfield lighting status (including failures) is presented in a clear manner overlaid on an airport map.



### Documents and Videos

Documents, such as charts, procedures and illustrations in different forms (PDF, JPG, PNG, Text etc.) can be displayed on the screen. Real time video from standard video cameras can be presented anywhere on the screen.



### Reports

INFOMAX is capable of processing and displaying various AFTN/AMHS messages, such as METAR/SPECI, NOTAM, TAF, SIGMET, ATIS, AIRMET etc.

CALL SIGN	ID/ID	TYPE	ADIS	REP.	TIME
BWRK72	875	A320	EDDH	GABN	11:32
LOT226	737	A319	EPWA	SPLND	11:33
NLY874	875	A319	LML	QELND	11:36
AUA117	845	F100	EDDH	QELVL	11:38
AUA943	F10	DW80	LOWK	DELEK	11:41
AUA900	704	A380	EGLL	OSZNR	11:45
AUA900	733	A380	EGLL	OSZEE	11:47
AUA117	845	A319	ESSA	QELDD	11:49

### Key Features

- Open and modular architecture
- Integrates any ATC-related information, including AFTN/AMHS-messages, meteorological data (for example wind, temperature, QNH and RVR), NavAids and ATIS and many more
- Extensive configuration capabilities
- Flexible HMI framework with powerful customization possibilities to create tailor-made solutions
- Modern UI concepts including full touch capability
- Can be easily extended to include functionality that may be required at an airport from the FIDS display to cabin controls
- Integrated airfield lighting monitoring and control capabilities
- High availability through redundant architecture
- Recording and Replay that can be synchronized to other recorders (for example voice recorders)

### Benefits

- Reduce visual workload by combining information of various kinds on one screen according to customer needs
- Display of information and controls fully customizable
- Reduction of CWP cluttering
- Consistent user interface for all connected systems
- No need to change console design for installation
- Minimum downtime during installation
- Additional CWPs only need one additional connection to the INFOMAX server instead of multiple connections to different systems



ADB SAFEGATE is a leading provider of intelligent solutions that deliver superior airport performance from approach to departure. We partner with airports and airlines to analyze their current structures and operations, and jointly identify and solve bottlenecks. Our consultative approach enables airports to improve efficiency, enhance safety and environmental sustainability, as well as reduce operational costs. Our portfolio includes solutions and services that harmonize airport performance, tackling every aspect of traffic handling and guidance, from approach, runway and taxiway lighting, to tower-based traffic control systems and intelligent gate and docking automation.

ADB SAFEGATE has 900+ employees in more than 20 countries and serves some 2,000+ airports in more than 175 countries.

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