



PRISMA[®]

Modular ATM automation system

Scalable from stand-alone to fully integrated centre solution

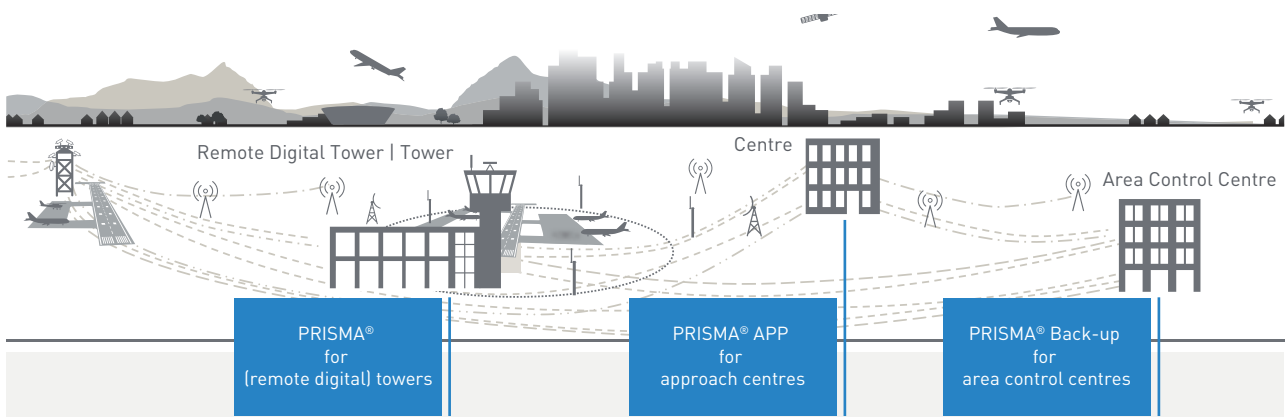
Air Traffic Management

FREQUENTIS
COMSOFT

Covering a wide range of use cases

PRISMA® is a scalable, fully functional ATM automation system, supporting all air navigation service functions, from pre-flight planning to real-time situational awareness including UTM traffic in a single, modern solution. PRISMA® offers air traffic services, including approach control services, flight information services and alerting services, with an advanced feature set.

The modular nature of the system makes PRISMA® suited for multiple use cases, such as tower, approach and back-up/contingency system. PRISMA® can be deployed as a stand-alone solution, as a complete ATM automation system or as a fully integrated solution based on the Frequentis MOSAIX platform for managing integrated ATM applications across controller working positions, control rooms and operational centres.



PRISMA® application landscape

PRISMA® for (remote digital) towers

The modular design of PRISMA® providing a real-time air situation picture enables airports of any size to sustain optimised situational awareness for the flights within their control zone. PRISMA® is also ready for deployment in complete digital towers giving controllers in the remote tower centre a full air situation picture of any connected airport.

PRISMA® for approach centres

For this use case PRISMA® features a flight data processing system (FDPS) for the automated processing of flight plan data and surveillance data for air traffic services (ATS). PRISMA® APP offers the option to forecast routes, calculate estimated times of arrival and validate distances between targets. The solution comes with controller working positions (CWPs) and SafetyNets dedicated to the special requirements of a time-critical, narrow airspace, requiring quick and easy decision making.

PRISMA® Back-up for area control centres (ACC)

PRISMA® Back-up is ideally suited for extending an existing automation system with contingency and fall-back capabilities, plus built-in virtual-centre capabilities that enable our customers to implement the vision of location-independent operations whereby any controller can control any flight, from any site. By setting up a back-up ACC system which is dissimilar from the main ACC, ANSPs can increase their resilience and reduce the probability of ATC Zero. PRISMA® Back-up provides the main interfaces for surveillance sources, flight plan data and OLDI coordination to be used in active mode. Simultaneously it processes the ATCO input to the main ATM system while running in passive mode.

Flexible PRISMA® ATM modules

The PRISMA® product family offers a full range of ATM modules designed to match the most varied application scenarios, ranging from stand-alone solutions to integrated surveillance data and flight plan data processing systems.

PRISMA®'s fully expandable and modular system design enables the continuous addition of functionality, supporting a buy-as-you-grow approach. Based on extensive experience in advanced air traffic automation systems our PRISMA® solution can be easily integrated with 3rd-party control environment, legacy and web-based environments.

PRISMA® can vertically integrate information along the complete surveillance data chain: from multiple sensor sources, to leading European trackers like ARTAS or multi sensor data fusion systems. Ultimately it presents different views of this data, guaranteeing seamless situational awareness during all phases of flight.

PRISMA® ATM automation modules are designed by controllers for controllers, and driven by ATC operational experts. The system design is based on recommended practices and is compliant with ICAO and Eurocontrol standards. Ongoing development is aligned with future operational demands such as the ICAO ASBU initiative and the SESAR virtual centre framework.

Flight data processing system (FDPS)

The FDPS module for the automated processing of flight plan data and surveillance data for air traffic services. FDPS offers the option to forecast routes, calculate estimated times of arrival and validate distances between targets.

SafetyNets (SNET)

The SNET functionality comprises short-term conflict detection (STCA), area proximity warnings (APW) and minimum safe altitude warnings (MSAW), all designed to assist the ATCO with optimal situational awareness. The SNET module displays a prominent visual warning on the screen, for acknowledgement by the operator, as well as a graphical representation of the conflicts while they persist.

Controller working position (CWP)

The high-performance, flexible and configurable HMI for an integrated presentation of all surveillance data (ADS-B, Multilateration, radar, ADS-C and pilot position reports) provides seamless air/ground awareness on one screen. PRISMA® CWP in combination with other Frequentis ATM modules forms a fully integrated surveillance data processing system.

Air situation display (ASD)

The Air situation display (ASD) is a cost-efficient awareness display system. ASD features one main traffic window including weather information, enabling the controllers to stay focused on the traffic in the assigned area. Additional support windows provide workflow-oriented information, to significantly reduce controller workload.

