Military air traffic control solutions
Efficient, flexible, integrated

Enhance operator situational awareness
Scale to meet individual requirements
Digitise for mission success at reasonable cost

Defence

FREQUENTIS
FOR A SAFER WORLD

Serving all needs of military air traffic control

Military air navigation service providers and military commands in all parts of the world are feeling the strain as they juggle the competing demands of worldwide missions, increasingly stringent regulations, new technologies and rising cost pressures. Frequentis offers comprehensive air traffic control (ATC) solutions that are both highly integrated and completely modular, enabling military units of any size to address requirements ranging from targeted upgrade projects to strategic replacements of entire ATC systems.

Key challenges for military ATC

Worldwide missions Growing numbers of worldwide missions put pressure on operations	**Legacy systems** Older technologies increase support and maintenance costs	**Safety regulations** More demanding regulations add new layers of complexity
Investment longevity Inflexible architecture results in reduced life cycles	**Usability** Operators require streamlined tools to maximise operational efficiency	**Standards** Military ANSPs need to ensure conformity to military (NATO) and civil (ICAO and EASA) regulations

Many military ATC units are challenged by the need to deliver safe, efficient and reliable services using a mix of disparate legacy and new technologies. Some countries involved in multinational missions may encounter particular challenges in meeting international safety standards. Furthermore, the ongoing digitisation of the industry offers opportunities to consolidate and enhance services in a cost-effective way, but military authorities may be reluctant to invest in future support and integration.

Now – thanks to a comprehensive suite of ATC solutions that are fully integrated, yet also modular and open – military ANSPs get to choose anything from a single product for renewing parts of a system up to a complete solution for a major aerodrome renovation. The chosen technologies will integrate seamlessly with legacy or new technologies from other providers.

ATC solutions for tomorrow's needs

The ATC solution portfolio enables military ANSPs to replace outdated technology and equipment, reduce maintenance costs, cut complexity and increase standardisation, improve safety and air-situation awareness, extend ICAO compliance, enhance operator efficiency and improve mission support.

The solutions bring all relevant information together, integrating and presenting it to the operator. This is accomplished by layering automation on top and increasing usability through intuitive interfaces, thus helping to improve situational awareness.

From small heliports to fighter wings and major air transport wings, and from voice communication via automation tools to remote virtual tower, the solution portfolio addresses all customer needs.

Key qualities

Scalability

Meets all requirements, from modular solutions for system upgrades up to comprehensive solutions for aerodrome renovations.
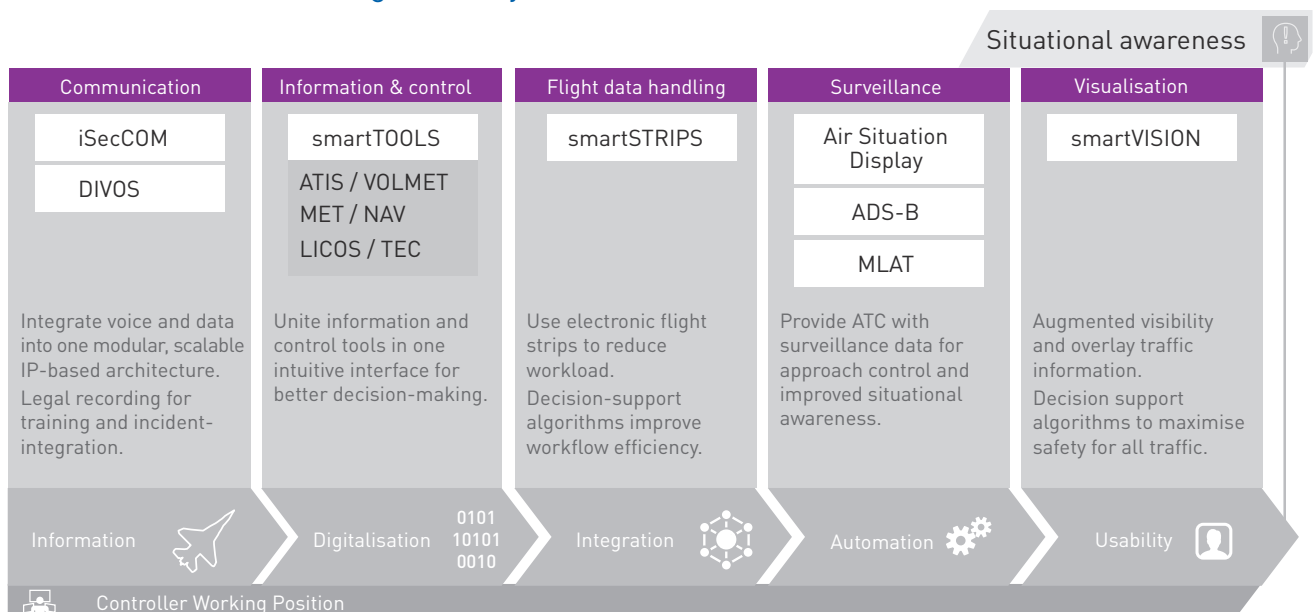
Interoperation

Standardises and simplifies information exchange between different units and functions within a military aerodrome and across a whole country.

Consolidation

Combines all essential information and controls into one configurable operator-focused interface delivering enhanced situational awareness.

Scalable solutions focusing on safety and mission success

Situational awareness

Communication	Information & control	Flight data handling	Surveillance	Visualisation
iSecCOM	smartTOOLS	smartSTRIPS	Air Situation Display	smartVISION
DIVOS	ATIS / VOLMET MET / NAV LICOS / TEC		ADS-B	
			MLAT	
Integrate voice and data into one modular, scalable IP-based architecture. Legal recording for training and incident-integration.	Unite information and control tools in one intuitive interface for better decision-making.	Use electronic flight strips to reduce workload. Decision-support algorithms improve workflow efficiency.	Provide ATC with surveillance data for approach control and improved situational awareness.	Augmented visibility and overlay traffic information. Decision support algorithms to maximise safety for all traffic.

Information	Digitalisation 0101 10101 0010	Integration	Automation	Usability

Controller Working Position

Accelerated deployment

The modular nature of ATC solutions enables rapid implementation and strengthened support for an exceptionally broad range of legacy and modern equipment. From simple to complex requirements in military aviation, the Frequentis custom-sized ATC solutions are ready for the challenges of tomorrow.

For military units and commands seeking a turnkey solution, Systems Interface, a member of the Frequentis Group, satisfies complex logistical and technical requirements, sourcing and supplying fully integrated ground-based navigation aids, ATC and meteorological systems, airfield ground lighting systems and more.

Selected military references

Armed Forces, Germany

For KOFA milFS, a customer-tailored VCS for all military ATC services at 20+ military airfields and two mobile towers. Additional voice and data communication capabilities were integrated at the two stationary and one deployable command and reporting centres of the German Air Force (KOFA CRC), ensuring the security of German air space in close cooperation with civilian ATC agencies. The KOFA CRC systems are interlinked with a countrywide Frequentis radio network, which is being migrated to full IP. Using that network, two complete search and rescue systems will be delivered consisting of KOFA voice communication, as well as its incident management system.

Ministry of Defence, UK

All VCS requirements for the MARSHALL programme in order to modernise locations in the UK and overseas – including airfields and ranges – and enable long-term, safe operation of all main Ministry of Defence bases, airfields, and air weapon ranges. The VCS products were provided for stationary and deployable elements, alongside a basic service support contract for 20+ years. This approach will result in savings through "managed services" thanks to improved efficiencies, scale and innovation.

Armed Forces, Austria

A strong partner since 1970, Frequentis delivered the ground-air-ground communication system with RED/BLACK separation to two fixed Military Control Centres, one deployable and all remote radio sites, while also supplying communication systems to all military airbases nationwide and providing and integrating systems in the control tower of the main airbase at Zeltweg. Under the AMMTEC Link16 program, the tactical data link for the Air Force was integrated. Furthermore, the company participated in the development of the Phoenix command and control system for the Army.

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