

POLARIS ATM

TECHNICAL INFORMATION

Polaris is modern ATM system built on over 25 years of experience in creating ATC solutions. Utilising components proven in operations for more than a decade, Polaris adds support for advanced capabilities, various architectures and industry-wide future improvements.

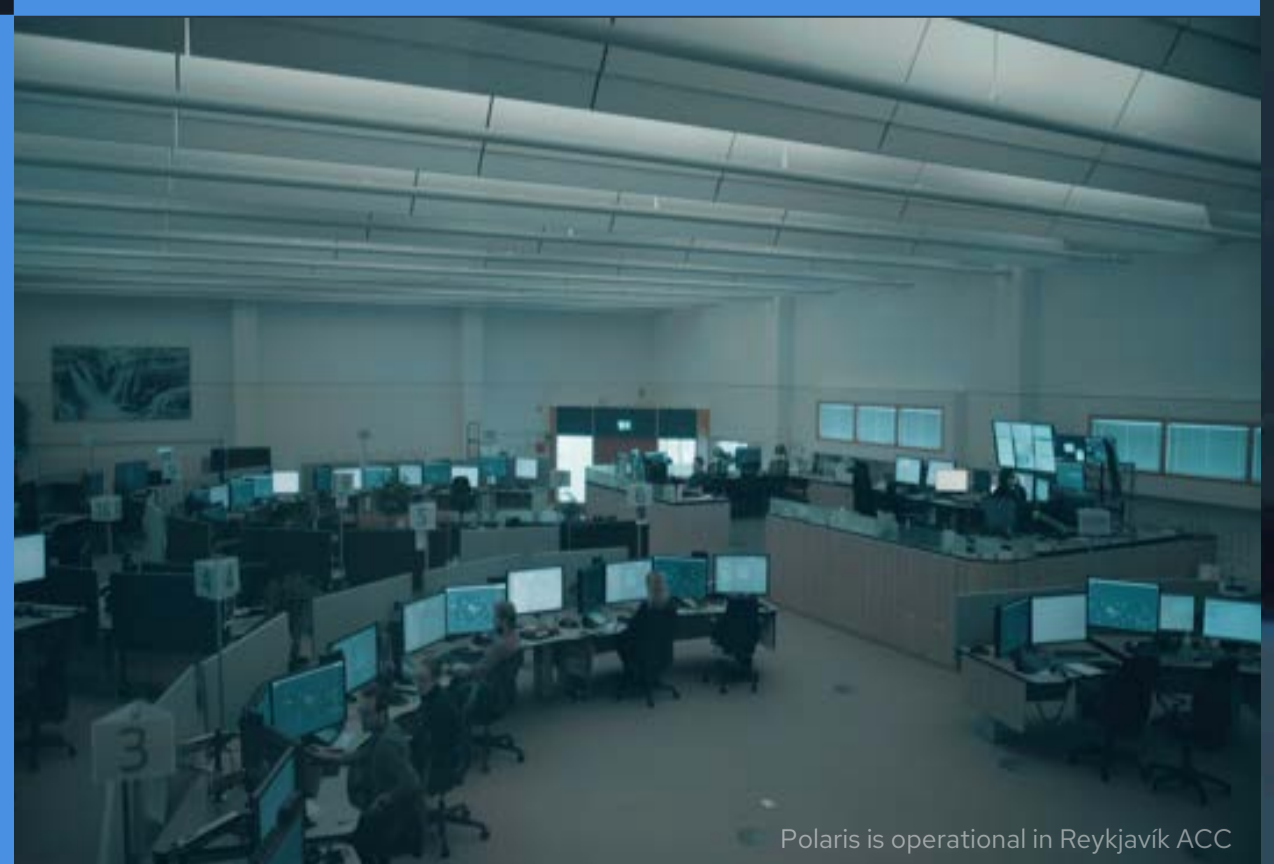
The Polaris modular architecture enables easy adaptation and the addition of newer components and capabilities following the latest in operational advancements. The system is designed from inception to accommodate diverse operational scenarios and high-capacity airspaces.



Tern Systems has extensive experience in deploying and supporting ATM systems at more than 15 locations worldwide. The continuous support of Polaris stakeholders, most notably the Icelandic Air Navigation Service Provider (Isavia ANS) ensures the continuity and the operational relevance of our solutions.

SYSTEM CHARACTERISTICS

- Highly-configurable, and intuitive system configuration tools
- User-centred and operations-informed design
- Modularity and support of third-party components
- DATA strategy - Data sharing for operational analytics/investigation



POLARIS ATM

Polaris supports Free Route Airspace (FRA), Flexible Use of Airspace (FUA), Dynamic Airspace Management, Virtualisation, Remote ATSU's as well as interfaces with airports through an A-CDM interface and developing standardised interface with U-SPACE.

Interoperability and shareability of data is key in ATM modernisation initiatives. Polaris ATM is already compliant with AIM 5.1 to offer easy ENV data shareability between AIM and ATM systems and beyond.



TECH SPECIFICATIONS

- Multi-position - TWR*, APP, ACC, OCA, FIS, MIL
- Fully electronic stripless system
- Datalink - ATN B1, B2* - FANS1/A
- Multiple controller tools
- Radar SEP Tool, Flight plan SEP Tool, Probing*, MTCD*, AMAN-inspired sequencer
- Enhanced trajectory prediction - Full 4D trajectory
- Dual standards for electronic coordination supported - OLDI, AIDC
- Safety Nets/Monitoring aids - STCA, MSAW, APW, AIW, RAM, APM, CLAM, DSFL
- Proprietary SDPS with additional support of third party trackers e.g. ARTAS
- Primary, Secondary, Mode-S, MLAT, ADS-B, SAT ADS-B, ADS-C*
- Radar weather support
- SWIM support - Environmental data fully supports AIMX
- On-site/Remote control and monitoring - System Management Console (SMC)
- Remote working positions supported
- Native in 4K Ultra High Definition, Vector fonts, GPU-accelerated
- Support for COTS Hardware
- Developed following ED-153 and ED-109A
- Compliant to relevant ICAO, EUROCONTROL and EUROCAE standards & guidelines
- Following ICAO ASBU Blocks - GANP, European ATM Master Plan
- Technical enabler for Common Pilot Project CP1 - (EU) 2021/116

* Features in development, scheduled to be completed by 2028
Operational deployment will replace the legacy ATM system for Icelandic airspace