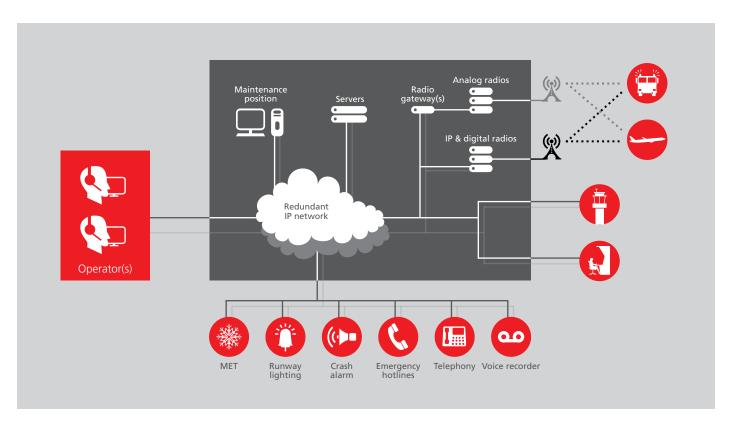


# Integrated communications for ATC

For over 60 years, Harris has been a trusted provider of mission and safety critical products, solutions, and services that support civil air navigation service providers (ANSP) and defense organizations globally. Our leading edge solutions significantly improve the safety, security and capacity of our customer's air traffic management operations.





# AVAILABILITY, RELIABILITY AND SAFETY IN ATC

Harris has extensive experience in providing mission and safety critical Voice over Internet Protocol (VoIP) communications system to air transport operators. With an IP core, the Switch**plusIP** offers a complete end-to-end IP solution which allows air

transportation operators to capitalise on existing network infrastructure as well as the scalability and flexibility that is only possible with a modern IP-based communications system. Through the seamless integration of communications assets (air/ground and ground/ground) as well as CCTV, alarm monitoring, facility controls and public address system,

Switch**plusIP** delivers a full range of solutions to maximize efficiency for all ANSP requirements.

Switch**plusIP** is compliant with the latest international air traffic management standards (ED136, ED137 and ED138) providing a modern IP-based, highly reliable and safe system.



# **ARCHITECTURE AND INTERFACES**

With the ability to easily network via existing IP-based communications infrastructure, Switch *plusIP* is designed for geographically distributed operations allowing ATM operators to capitalise on efficiency gains from remote operations including centralised management of remote towers and airfields.

The system utilises a completely distributed architecture with dual networks and peer-to-peer audio. The result is increased redundancy, reduced latency and no interruption to audio during a network outage.

Additional operators or radios can be rapidly added and multiple systems can be linked together to form larger systems. Each system can operate autonomously yet still gain access to radio assets of the other sites via the network. This "any operator, any radio, anywhere" capability increases efficiency through flexible staffing and better site management.

# **ABOUT HARRIS**

We are proud to deliver solutions that allow for the rapid expansion and growth of the global air transportation industry. From large scale Automatic Dependent Surveillance-Broadcast (ADS-B) networks, end-to-end IP voice systems, to air traffic flow management solutions, to the provision of cloud-based, real-time situational awareness applications, Harris is a leading global provider of comprehensive ATM solutions and technologies.

# **BENEFITS OF SWITCHPLUSIP**

First deployed in 2007, the current generation Switch**plusIP** architecture is tried and tested with a long deployment history providing proven trusted performance and reliability.

The end-to-end IP architecture natively supports "any operator, any radio, anywhere" enabling applications such as remote tower operation. Advanced integrated facility control and monitoring capabilities support functions such as runway lighting control, display of MET and CCTV images to enhance control of remote airports. Continuous upgrading through ongoing R&D specifically focussed on the aviation market ensures your system will remain state of the art.

# **FEATURES**

- Integrated radio communications: ED-137, P25, Tetra, conventional UHF & VHF
- Integrated IP and legacy telephony: PAGA, SIP, E1/T1, PRI/BRI, FXO, FXS, MFC-R2 & ATS OSIG
- Facility control: doors, sirens, booster pumps, lighting, access gates & CCTV. Ideal for remote tower
- Alarm monitoring: interface to distributed fire alarm panels from buildings and concourse
- Integrated asset management and vehicle dispatch with AVL
- > True end-to-end IP (no TDM elements)
- > Any operator, any radio, anywhere

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Harris is dedicated to developing best-in-class assured communications® products, systems and services.





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