

# LEADINSKY BACKUP SYSTEM

ELECTRONICS DIVISION



## RELIABLE BACKUP SOLUTION FOR ANY ATM SYSTEM

The LeadInSky Backup System provides the highest reliability during Air Traffic Management operations under any planned or unplanned outage condition in a primary ATM system.

This system is part of the flexible Air Traffic Management (ATM) platform developed by the company for providing reliable backup solutions to any ATM system currently in operation.

LeadInSky Fallback and Disaster Recovery System has been designed to provide the highest reliability to ATC ATM operations under any outage condition (planned or unplanned) of any third party primary ATM system, irrespective of the its brand, maintaining same look-and-feel HMI of the primary system.

Air Traffic Management is one of the most demanding domains for all the software intensive real-time systems, requiring the adoption of redundancy strategies at system level, in order to minimise service downtime and ensure operation continuity.

The LeadInSky Backup System can provide an unnoticeable downtime to ATM operations in case of:

- › Unexpected failure of a primary system
- › Planned shutdown of a primary system
- › Long-term planned or unexpected unavailability of a primary control room

In addition the Backup System can be alternatively deployed as:

- › Fallback system, i.e. co-located with the primary system and possibly sharing the operational room
- › Disaster Recovery system, i.e. geographically separated with respect to the primary system and possibly co-located with another primary system

## KEY FEATURES

The system is designed with the following features:

- › Fully independent of the primary system for the most critical services (i.e. surveillance data reception, processing and presentation)
- › Based on a different software baseline and on a completely separate hardware platform, in order to be unaffected by the events causing outages in the primary system

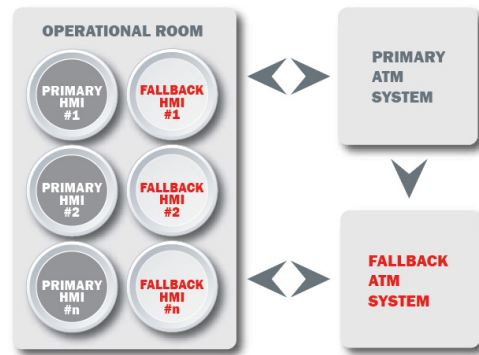
- › Designed to continuously keep aligned flight plans and track correlations by gathering key data from the primary ATM system through standard interfaces
- › Configurable with the ATM functions included in the primary system
- › Integrated with a flexible and highly customizable Human Machine Interface (HMI), in order to provide the final user with the same look-and-feel of the primary system
- › Flexible deployment as a Local Fallback or a Remote Disaster Recovery solution
- › Minimum/no impact on primary system during installation and integration
- › No impact on primary system during operations



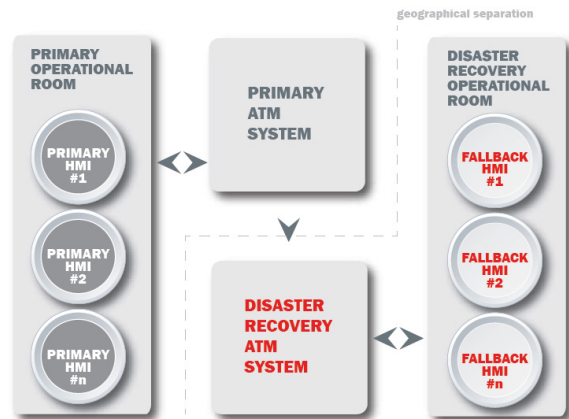
## THE SYSTEM

Based on a state-of-the-art ATM solution, already deployed and operated worldwide, the system has been designed to support the most demanding redundancy policies and the most complex operational scenarios, with the following technical characteristics:

- › Designed without common points of failure with the primary system, to be immune of any flaw in it
- › Independent acquisition, processing and dispatching of the same surveillance data as the primary system, for providing controllers with the same radar picture
- › Integration of a flexible interface to retrieve key data in a standard format from the primary system (flight plans, flight progress, SSR code, etc...)
- › Independent acquisition, processing and dispatching of AFTN data without affecting the primary system for setting up a continuously updated data base ready to start after the switchover
- › Flexible deployment as local fallback or remote disaster recovery solution for the primary system
- › Deployment of backup working positions beside the operative ones, for sharing the same input/output peripherals and allow controllers to work without changing their positions in case of contingency
- › High level of customization to provide HMI similar to the primary system one, minimising training effort to operate fallback system
- › Easy upgrade and expandability to become a main system according to user's needs.



LeadInSky deployed as fallback system



LeadInSky deployed as disaster recovery system

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