NOVA 9000 A-SMGCS
Advanced Surface Movement Guidance and Control Systems

New air traffic control tools from Indra Navia allow controllers to safely and efficiently manage increasing air traffic volumes at airports. The NOVA 9000 suite of Air Traffic Control Systems (ATCS) can deliver improved service by providing additional safety, efficiency and achievable capacity, whilst maintaining the airport’s operating level in all weather conditions.

The NOVA 9000 is the world’s leading system for airport surface surveillance and control. The installation base and reference sites range from the world’s most demanding airports with complex layouts and configurations to medium-sized and small regional airports. The experience and knowledge obtained through these installations is passed on to new systems and new and satisfied users, resulting in the most robust and mature product available on the market.

NOVA 9000 integrates data from multiple sources to provide a comprehensive situation display of traffic on the aerodrome surface and in the surrounding airspace, with accurate and timely position and identification of aircraft and vehicles, and seamless coverage throughout the surveillance volume.

The NOVA 9000 A-SMGCS offers real benefits to you – the customer and user. The unique technology and integration capabilities include:

1. Improved situational awareness
2. Maintaining safety and traffic flow even in adverse weather
3. Safety logic (RIMCAS) that controllers can trust
4. Effective and economical information sharing (CDM)
5. Billing and statistics
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#### THE NOVA 9000 A-SMGCS PROVIDES

**High reliability and proven performance**
- Very high MTBF and availability
- Similar COTS hardware and software platform used in all NOVA 9000 systems throughout the world
- Software base from the NOVA 9000 family installed and operational in more than 100 systems at airports and control centres around the world including major international hubs such as Heathrow, Gatwick, Stansted, Charles de Gaulle, Orly, Brussels, Prague, Zurich, Dubai, Kuala Lumpur, Beijing, Sao Paolo, Toronto...

**Modularity and Scalability**
- Open System architecture running on the LINUX operating system
- High-speed local area network (LAN) providing data communication between units
- Similar COTS hardware and software platform used in all NOVA 9000 systems throughout the world
- Easily integrated with existing systems

**Ease of implementation**
- Highly configurable and easily tailored to meet the operational requirements of different users and changing conditions

**User-friendly interaction**
- HMI includes menus, dedicated function keys, icons, text windows, graphic windows, pop-up alerts and warnings, etc

**Interoperability with other systems**
- Communication with other systems using internationally recognised standards and protocols

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#### FUNCTIONAL HIGHLIGHTS INCLUDE

**Multi-sensor data fusion – up to 16 surveillance sources**
- TAR (Terminal Area Radar - PSR/MSSR)
- SMR (Surface Movement Radar)
- MLAT (Multilateration)
- ADS-B (Automatic Dependent Surveillance – Broadcast)

**Safety Nets:**
- RIMCAS (Runway Incursion Monitoring and Conflict Alerting System)
- Taxiway and restricted area monitoring and alerting
- Route conformance monitoring and alerting

**Extensive mapping:**
- Up to 100 map overlays
- Temporary mapping and text

**HMI functions:**
- Labelled traffic situation display with inset windows
- SMR video
- Single sensor, mosaic or data fused plots and tracks
- Independent pan and zoom
- Multiple BRMs and cursor lines
- Selection of preset settings
- Label deconfliction
- Track history and prediction
- Area filtering
- Independent brightness controls

**Higher-level functions:**
- Electronic Flight Strips
- Taxi routing tool
- Control and monitoring of stop bars and taxiway centreline lighting

**Maintenance facilities:**
- Remote control and monitoring of the entire system
- Recording and playback facilities

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