The AVTURA™ RATT™ is a software tool to aid airlines to efficiently and effectively manage their aircraft operations proactively in a reactive environment. The tool is utilised by the airline, ground handling agent (GHA) or airport operator to capture real time information at the aircraft during the turnaround process and to share this information via a Personal Digital Assistant (PDA) with the airline/GHA Operations centre. Decision makers monitor, report and act upon this information to maximise the efficiency and effectiveness of the aircraft turnaround and hence improve On-time performance (OTP). This information is also stored in the RATT™ database to allow for slower time analysis to aid future strategic/tactical planning and to assess company performance and adherence to their Service Level Agreements (SLAs) and Key Performance Indicators (KPIs) and is shared with other airport systems such as A-CDM.

RATT™ utilises the latest mobile data collection technology and advanced communications devices including Ruggedised Personal Digital Assistants (PDA), using Windows Mobile 5/6 (WM5/6) WLAN and GPRS Communications. RATT™ includes a web based management and data analysis interface to allow a clear and concise real-time view of the operation to management, operations controllers, passenger services and ramp personnel. AVTURA's™ unique and simple RATT™ user interface allows the system to be used by all personnel with the minimum of training or experience.

The RATT™ system captures the "Start" and "Stop" times (as well "Prior" and "Requested" actions) of all service events as part of an aircraft turnaround (engineering/maintenance, cleaning, catering, fuelling, loading, boarding, crewing etc). The system also captures secondary information such as first bags at aircraft, last bags at aircraft, number of bags, passenger closure figures, first passenger at gate and last passenger at gate, to quote a few examples. The RATT™ application enables the operator (dispatch officer/turnaround coordinator/team member) to capture this information in real-time via the RATT™ user friendly interface with a single "click" on a handheld PDA for each event. RATT™ also has the ability to take automatic feeds from other auxiliary systems (as required by individual customers).

Therefore RATT™ provides a complete, real-time overview of all turnaround related information, including push back and towing, fuelling, catering, cleaning, cargo, baggage, load plans, passenger buses, crew, boarding and security. A tailored individual flight profile based on SLA's for carrier, flight number, aircraft type, aircraft registration, configuration, gate, origin and destination, runs throughout the turnaround process automatically alerting the user to any critical events which may affect an on – time departure.

These events are colour coded to highlight any areas of concern or major problems and are graduated to show the importance and impact of any overdue event. This allows the Dispatcher/Turnaround Coordinator to pro-actively manage the flight efficiently and effectively to ensure all services are carried out as and when they are required, thus enabling improvements in the efficiency of airside operations and On-Time Performance, reducing delays and costs , therefore maximising revenue and ensuring a safe airside operating environment.

All data is then able to be compared against SLA performance and billable events/services as required.

All real-time information for each flight is also available to supervising personnel in operations control so as to give an overall real-time graphical operational picture which allows for proactive and efficient management of the entire operation

This real-time "dashboard view" can be provided as part of a RATT™ total solution or the relevant data can be provided to existing systems. The RATT™ architecture uses an Enterprise Service Bus as a messaging backbone for both internal and external use. Information can be readily provided to other services such as FIDS and FINDS (flight information display systems for both public and airport/airline operators) systems, as well as A-CDM Portals, DCS and messaging systems (i.e.IATA Type B Messages).The data is also able to be shared with existing finance and billing systems as required.

RATT™ has been designed to work on Open Enterprise Service Bus (ESB) architecture. All software is Java EE 5 compliant and therefore we believe that integration with other ESB systems should be readily achievable.

The system platform for RATT™ comprises of:
- Handheld Mobile Devices
- Java EE 5 compliant application server
- Oracle DBMS
- Hibernate ORM (to allow flexibility in Database Support)
- The RATT™ application (which is AVTURA™ proprietary software).

RATT™ is available both as a hosted service delivered via secure channels or as a self-hosted application. In both cases customers are assured of high quality support and the highest levels of security and reliability. AVTURA's™ RATT™ solution is scalable and hence able to accommodate both small and large busy airports along with multiple station operations. Therefore, overhead costs are reduced and management is provided with real-time accurate information to monitor performance and quality in all areas and stations in the operation.

The RATT™ mobile data collection and web based administration, reporting and operations systems provide a low total cost of ownership through minimal infrastructure costs and risk which also allows for rapid deployment and accelerated ROI.

RATT is in use with Virgin Atlantic Airways and London's Heathrow and Gatwick Airports where it is providing real-time TOBT and TSAT data to and from the airports A-CDM Portal from aircraft side.

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