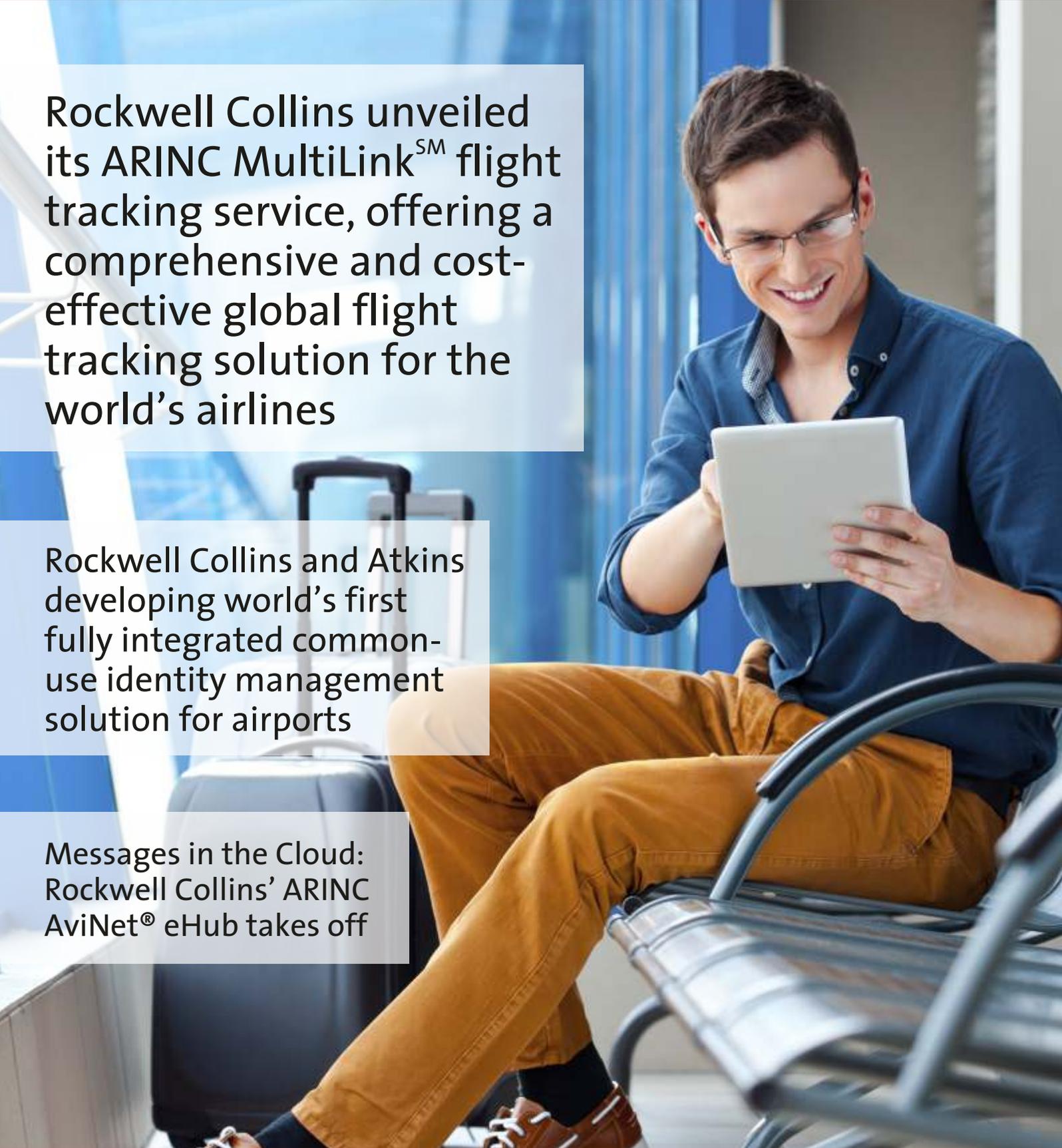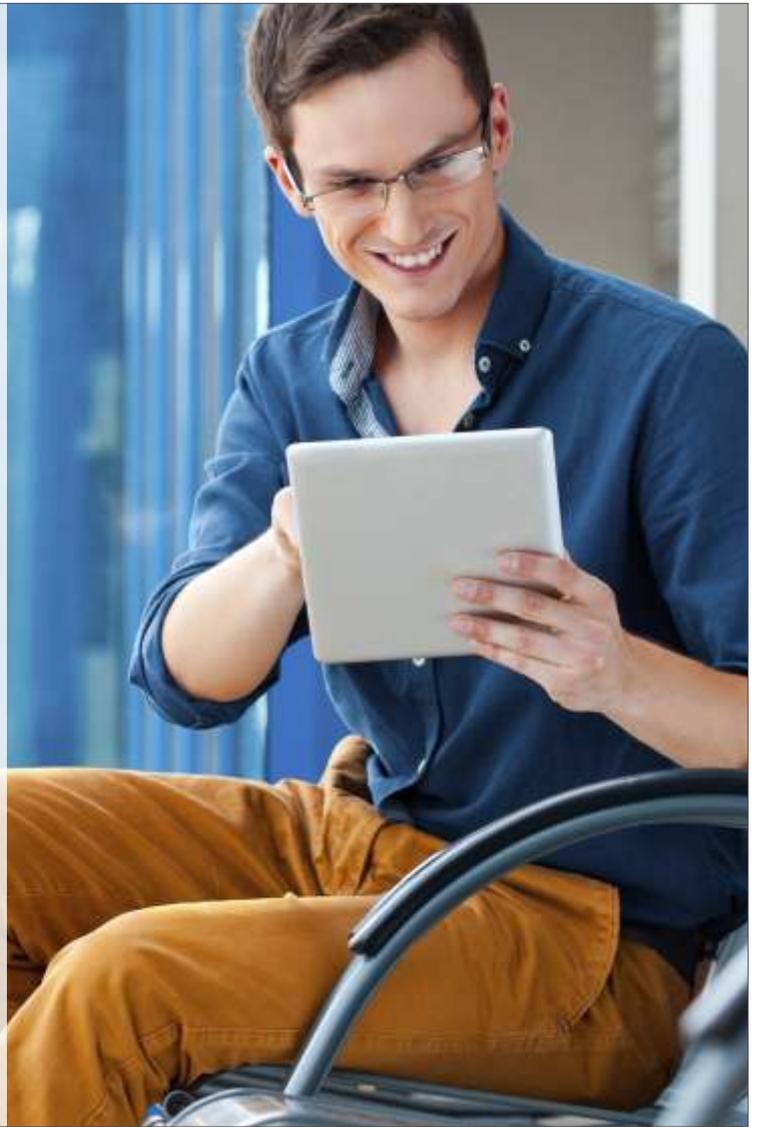# Information Management Services

June 2015

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**Rockwell Collins and Atkins developing world's first fully integrated common-use identity management solution for airports**

**Messages in the Cloud: Rockwell Collins' ARINC AviNet® eHub takes off**

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# Welcome

When Rockwell Collins acquired ARINC in December 2013, all of us at ARINC were excited by the prospect of the acquisition.  As part of Rockwell Collins we have seen investment in our business increase substantially.  Today that investment is producing results in the form of new products and services across every sector of our business which we are pleased to present to the market place.  Some of those products are highlighted in this Newsletter. Investment is also taking the form of aggressive VHF Ground Station expansion throughout Europe and particularly the Middle East and Africa to support current and new customer airlines using our Aircraft Voice and ACARS Datalink Services.

Our customers are able to benefit from the wider skills and capabilities of Rockwell Collins with our Avionics playing a major part in the production of next generation airplanes including the recently announced 777X award, 787 Dreamliner, 737 MAX and Airbus A350.  This capability allows you, the customer, to capitalise on end to end Rockwell Collins solutions in Aircraft Avionics and Communications.

We look forward to bringing you more news in the coming months and wish you a successful year.

**Paul Hickox**
*Managing Director*
*Europe, Middle East & Africa Region*
*Rockwell Collins*
*Information Management Services*
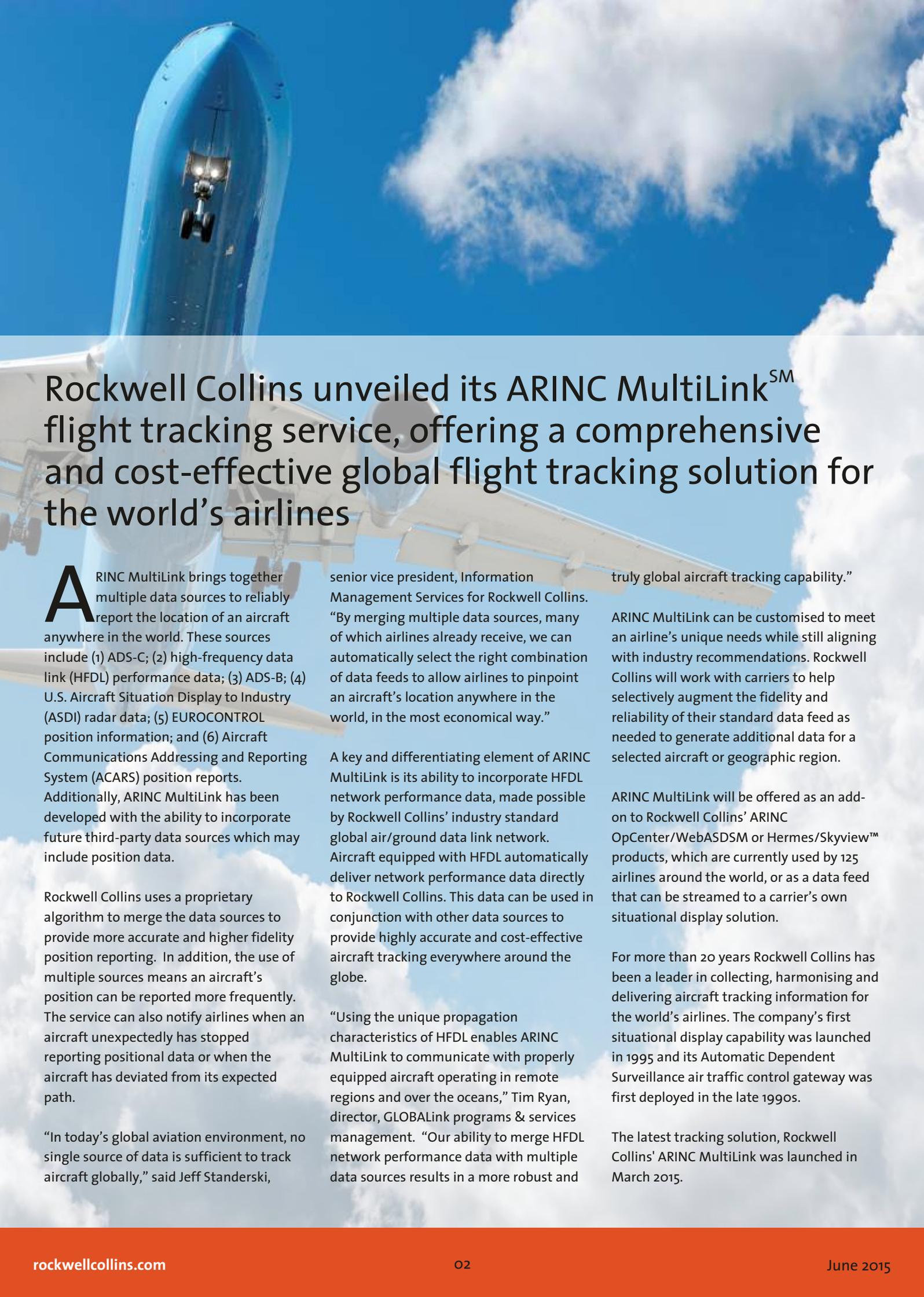
# Rockwell Collins unveiled its ARINC MultiLink[SM] flight tracking service, offering a comprehensive and cost-effective global flight tracking solution for the world's airlines

ARINC MultiLink brings together multiple data sources to reliably report the location of an aircraft anywhere in the world. These sources include (1) ADS-C; (2) high-frequency data link (HFDL) performance data; (3) ADS-B; (4) U.S. Aircraft Situation Display to Industry (ASDI) radar data; (5) EUROCONTROL position information; and (6) Aircraft Communications Addressing and Reporting System (ACARS) position reports. Additionally, ARINC MultiLink has been developed with the ability to incorporate future third-party data sources which may include position data.

Rockwell Collins uses a proprietary algorithm to merge the data sources to provide more accurate and higher fidelity position reporting. In addition, the use of multiple sources means an aircraft's position can be reported more frequently. The service can also notify airlines when an aircraft unexpectedly has stopped reporting positional data or when the aircraft has deviated from its expected path.

"In today's global aviation environment, no single source of data is sufficient to track aircraft globally," said Jeff Standerski, senior vice president, Information Management Services for Rockwell Collins. "By merging multiple data sources, many of which airlines already receive, we can automatically select the right combination of data feeds to allow airlines to pinpoint an aircraft's location anywhere in the world, in the most economical way."

A key and differentiating element of ARINC MultiLink is its ability to incorporate HFDL network performance data, made possible by Rockwell Collins' industry standard global air/ground data link network. Aircraft equipped with HFDL automatically deliver network performance data directly to Rockwell Collins. This data can be used in conjunction with other data sources to provide highly accurate and cost-effective aircraft tracking everywhere around the globe.

"Using the unique propagation characteristics of HFDL enables ARINC MultiLink to communicate with properly equipped aircraft operating in remote regions and over the oceans," Tim Ryan, director, GLOBALink programs & services management. "Our ability to merge HFDL network performance data with multiple data sources results in a more robust and truly global aircraft tracking capability."

ARINC MultiLink can be customised to meet an airline's unique needs while still aligning with industry recommendations. Rockwell Collins will work with carriers to help selectively augment the fidelity and reliability of their standard data feed as needed to generate additional data for a selected aircraft or geographic region.

ARINC MultiLink will be offered as an add-on to Rockwell Collins' ARINC OpCenter/WebASD℠ or Hermes/Skyview™ products, which are currently used by 125 airlines around the world, or as a data feed that can be streamed to a carrier's own situational display solution.

For more than 20 years Rockwell Collins has been a leader in collecting, harmonising and delivering aircraft tracking information for the world's airlines. The company's first situational display capability was launched in 1995 and its Automatic Dependent Surveillance air traffic control gateway was first deployed in the late 1990s.

The latest tracking solution, Rockwell Collins' ARINC MultiLink was launched in March 2015.

# Rockwell Collins and Atkins developing world's first fully integrated common-use identity management solution for airports - Integrated biometrics improve passenger flow and convenience while maintaining security

Airports seeking ways to automate passenger processing while maintaining the highest security levels will soon have a new suite of highly configurable airport identity management solutions at their disposal.

Rockwell Collins is integrating its ARINC vMUSE™ and ARINC Veripax™ technologies with the Atkins Identity Management toolkit to capture a traveler's identity using biometrics and match it with the passenger's passport and boarding pass information.

ARINC vMUSE can accommodate a wide range of biometrics (for example, finger print, facial recognition or iris scan) to deliver a plug-and-play solution that can be implemented quickly and easily. The solution enables a phased rollout of biometric processing, with airline or gate-specific rules permitting biometrics to be used only when needed.

The integration will streamline passenger processing through the airport, from passenger identification at check-in to self-boarding gates.

"Airports are seeking ways to improve operations and passenger flow while maintaining the rigorous security levels required today," said Christopher Forrest, vice president, Global Airports for Rockwell Collins. "We're creating a suite of self-service solutions that integrate biometric authentication into each phase of passenger processing, enabling airports to securely automate everything from check-in through boarding the airplane."

As part of the initial implementation, ARINC vMUSE common-use passenger processing systems (CUPPS) now include standardised plug-ins and configurable work flow capabilities that enable airlines and airports to implement identity management solutions as part of the check-in process, without requiring changes to an airline's Departure Control Systems (DCS).

"Combining Rockwell Collins' experience deploying CUPPS technology at airports worldwide with our proven capabilities in developing and implementing biometric applications has allowed us to create a fully integrated identity management solution for airports," said Nick Whitehead, head of strategic services, identity assurance at Atkins. "Airports can use this service to validate a passenger's identity, ensuring that the individual given the authority to fly is actually the one who boards the plane."
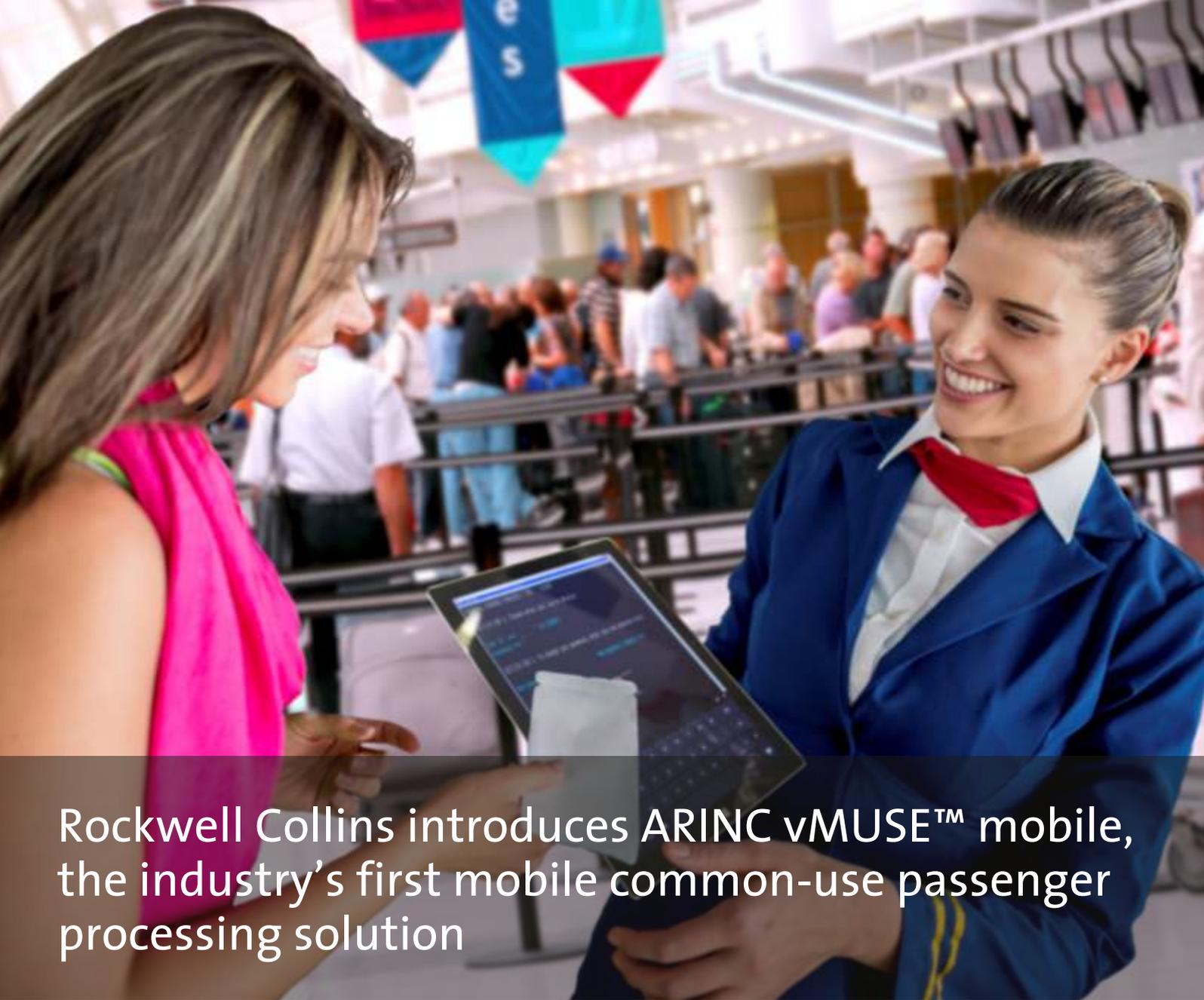
# Rockwell Collins introduces ARINC vMUSE™ mobile, the industry's first mobile common-use passenger processing solution

Rockwell Collins recently unveiled ARINC vMUSE™ mobile, the first entirely mobile common-use passenger processing (CUPPS) compliant solution for the aviation industry. ARINC vMUSE mobile enables airline and ground handling agents to utilise a tablet-based application to check in passengers from anywhere in an airport when traditional CUPPS systems are not enough.

ARINC vMUSE mobile enhances an airport's existing common-use infrastructure, reducing queues resulting from irregular operations or spikes in passenger traffic by enabling airlines to launch passenger check-in service in minutes, wherever there is an internet connection.

"Weather, maintenance and other factors that can cause flight delays or cancellations wreak havoc with an airport's schedule and are a major source of frustration for passengers," said Christopher Forrest, vice president, Global Airports for Rockwell Collins. "When irregular operations occur, ARINC vMUSE mobile allows agents to go anywhere in the terminal to process passengers quickly and cost effectively."

ARINC vMUSE mobile allows each airline to access its own check-in application no matter where they are in the airport. Using a tablet PC and peripherals housed in a secure protective casing, ARINC vMUSE mobile provides the same security and reliability of the company's traditional IATA-compliant CUPPS, but does not require any installation time, software configuration, telecommunications lines or added technical resources.

"ARINC vMUSE mobile fills a need for airports, enabling them to take a full CUPPS where traditional systems are unable to go," said Forrest. "Beyond the airport, ARINC vMUSE mobile opens up a number of unique passenger processing opportunities that include off-airport check-in, processing for start-up operations and onboard passenger processing."

# RwandAir chooses Rockwell Collins' ARINC airport systems to improve operations and enhance passenger processing



Rwanda's national carrier, RwandAir, has selected Rockwell Collins' ARINC common use passenger processing systems (CUPPS) and related technologies to support the airline's strong passenger growth.

Under a new, five-year contract, RwandAir will implement the company's ARINC vMUSE™ common use check-in platform, ARINC AirVue Flight Information Display System (FIDS) and AirDB 7, the latest generation ARINC Airport Operational Database (AODB) system.

"We selected Rockwell Collins because we were impressed by its reputation for excellent customer service, as well as the history of successful project implementations for other airports in our region," said John Mirenge, the Chief Executive Officer at RwandAir.

"The African aviation industry has been experiencing steady growth over the past several years," said Paul Hickox, managing director, IMS EMEA for Rockwell Collins. "RwandAir, one of Africa's fastest growing airlines and a key pillar in the development of Rwanda's economy, is playing a key role in successfully developing Kigali International Airport as a new hub at the heart of Africa. With the renovation of Kigali and the selection of Rockwell Collins' ARINC airport systems, RwandAir clearly understands the need for providing scalable and customisable solutions that are on international standards."

# Messages in the Cloud: Rockwell Collins' ARINC AviNet® eHub takes off

When it comes to the more exhilarating aspects of aviation, messaging is often not the first topic that comes to mind. But effective, reliable message delivery is at the heart of what the commercial and business aviation industry depends upon to operate efficiently. And that's why more and more airlines, airports, ground handlers and even aviation authorities are turning to Rockwell Collins.

ARINC AviNet Mail Enterprise - or eHub for short - is a multi-user, web-based messaging service. Originally targeted towards larger organisation's, ARINC eHub's capabilities are resulting in significant adoption by new customers across the entire industry with user numbers ranging from one to over 200 users needing global accessibility.

What's led to all of this growth? "Rockwell Collins identified a gap in the market where Type B and other messaging was concerned," said Adam Mottram, Aviation Solutions EMEA Product Manager. "Our customers wanted a multi-user system that was cost effective, easy to use and easily accessible. ARINC eHub fits the bill."

ARINC eHub is a cloud-based service that eliminates much of the costs associated with installing the servers and infrastructure necessary to operate traditional solutions. "With no hardware or software license fees, ARINC eHub results in significant cost savings across all areas of operations," notes Mottram.

Another key benefit of the technology is ARINC eHub's ability to handle both human and system-generated messaging. Using ARINC eHub, queues can be set up to send and receive automated messages. "And with ARINC eHub - unlike competitor's offerings - all internally generated messages are free, once again reducing costs."

Mottram also cited the product's flexibility as an important reason for its popularity. "The ability to use ARINC eHub through any internet-enabled device has made it particularly valuable for organisations that need to communicate with users located throughout an airport."

**Customer feedback is positive**
"We took a very structured product management approach when developing ARINC eHub," notes Mottram. "That's important because we really focused on incorporating the voice of the customer into every aspect of its design." For users, that focus led to an easily customisable interface that makes including different languages or setting up global and local rules quick and straightforward."
So far, it appears that approach has paid off - customers are very happy with the product and the support they receive from Rockwell Collins. A recent survey found that 94% of ARINC eHub customers said it

meets all or most of their messaging needs and they overwhelmingly would recommend it to their colleagues.

The survey also revealed that a number of customers switched to eHub because of price. "Customers commented that they were very satisfied in terms of the value ARINC eHub provides for the money, and they consistently referenced how cost-effective the product is."

**Future looks bright**
Recently, a number of customers have chosen ARINC AviNet eHub as their cloud-based messaging delivery service. "Over the last 12 months, we have added 30 new customers."

The product has been so successful in Europe, the Middle East and Africa with over a 70% win rate from trial to contract that the company is making plans to launch the service in the US and Asia Pacific markets soon. "We believe - and the growth is indicating - that customers everywhere can benefit from ARINC eHub. What we've found is that ARINC eHub provides a complete messaging solution for any aviation industry business."

# Rockwell Collins to offer smart routers as part of ARINCDirect services for business aviation customers

Rockwell Collins has entered into a strategic partnership with ICG (International Communications Group, Inc.) to offer its eRouter (ERT-100 and ERT-120) smart cabin routers to the company's ARINCDirect[SM] business aviation customers.

"Offering a smart router as part of our solution provides access to on-board content and allows us to create value-added services for our customers," said David Stanley, staff vice president, ARINCDirect for Rockwell Collins. "We can now provide end-to-end solutions that integrate our ground and air applications to save business aviation operators time and expense, while improving the overall passenger connectivity experience.  The ICG eRouter provides superior capabilities at a very affordable cost."

For business aviation, smart routers are now a necessity for aircraft connectivity enablement. They provide data and voice routing services for aircraft applications and are developed specifically to meet aviation standards and requirements.  In addition to managing on board networks like Ka, Ku, L-Band, ATG and GSM within the cabin, the router enables more flight departments and crews to access ARINCDirect service offerings such as Follow Me GSM over Wi-Fi, media content, international trip planning and weather services by acting as the communications gateway for any number of connected devices onboard.

The smart router also supports cabin crew, flight deck and aircraft system data communication requirements, enabling flight crews using the ARINCDirect Flight Planning app to access their account and update flight plans, weather, charts and trip documents while en route.

"The ICG eRouter has a robust set of features to include 3G/4G LTE connectivity for on-ground data transfers as well as channel bonding capabilities and next generation acceleration/compression software for faster data speeds in the air," said Darren Emery, ICG's Director, Connectivity Products and Program Management. "Rockwell Collins customers will benefit from features such as routing based on the lowest cost given the available networks and bandwidth allocation disseminated in the right amount to the right places, making for a positive passenger experience."

"In addition to all of its features and functionality, the ICG eRouter has one other important distinction," notes Stanley. "It is service agnostic and gives operators the freedom to choose their satcom provider. Having a choice in providers is beneficial to users by keeping the service costs competitive as well as driving innovative value-added solutions."

# Rockwell Collins increases capacity and expands ARINC global network in Europe, the Middle East and Africa

As part of Rockwell Collins' strategy to grow its global information management footprint, the company announced a series of initiatives that will increase capacity and expand the company's ARINC global network throughout Europe, the Middle East and Africa (EMEA).

The initiatives, aimed at proactively addressing growing air traffic and more data being generated by modern aircraft, includes expanding the number of VHF ground stations, adding VHF Digital Link Mode 2 (VDL Mode 2) frequency capacity in Europe and implementing a proprietary algorithm that will increase network capacity 10 times over traditional VHF solutions.

"These are significant investments by Rockwell Collins that will deliver a host of benefits to airlines flying in the EMEA region," explained Jeff Standerski, senior vice president, Information Management Services for Rockwell Collins. "Airlines will have access to the most robust, secure communications network available to transmit critical flight and crew information to and from the aircraft. In addition, the new airport-based frequencies will significantly improve performance for operators by automatically transitioning aircraft communications to the optimal frequency based on network load and capacity."

The enhancements are now operational at a number of key European airports and are being rolled out across the region.

As the largest aeronautical data link provider in the world, Rockwell Collins delivers more than 23 million ACARS messages per month for over 150 airlines and 15,000 aircraft, providing real-time reporting of the critical flight information airlines rely on to maximize performance, safety, and operational integrity.

# ARINC | airports

We are committed to self-service, convenience and shorter lines at the airport.

Rockwell Collins is revolutionising the way airports, airlines and travel operators move passengers and baggage to their destinations.

We offer unparalleled expertise in shared systems and networking - integrating the entire airport enterprise for check-in and boarding, baggage handling, passenger self-service and more.

Our dedication sets the standard for technologies that speed passenger flow, streamline operation, reduce costs and strengthen security.

To learn more visit:
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# Rockwell Collins

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