

AEROSPACE SPECIAL

CIOReview

The Navigator for Enterprise Solutions

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IN MY OPINION

Sean S Torpey,
CIO, AIT Office of Information Services,
FAA

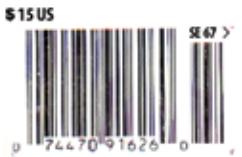
CEO OF THE MONTH



Samuel Kellett, Jr.
Co-founder, Chairman & CEO,
United Sciences

RAINMAKER BUSINESS TECHNOLOGIES: CONNECTED AIRLINE, CONTROLLED COSTS

Brendan Fuller,
CEO



#202, Fremont, CA 94538
44790, S. Fremont Blvd
CIO REVIEW

RAINMAKER BUSINESS TECHNOLOGIES:

CONNECTED AIRLINE, CONTROLLED COSTS

By Melissa Reaktenwalt

A typical bustling airport with scores of planes taking off and landing requires flawless execution, with many stakeholders playing their part in perfect symphony. However, behind the scenes things are not the same for commercial airlines today as they were, and they operate on wafer thin margins, struggling to rein in the operational costs to maximize the revenue. Over the last few years, the costs associated with running a successful airline have grown steadily around three critical areas—Crew, Network and Fuel Performance—accounting for almost 40 percent of the operational costs. Many airlines have little insight into their

Brendan Fuller,
CEO



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crew utilization and crew costs, and as a result, crew scheduling decisions are made based on past experience or intuition. "Better decisions can be made and better operational results can be achieved by providing accurate and timely information on available options and their costs," explains Brendan Fuller, CEO, Rainmaker Business Technologies. As specialists in the airlines industry, Rainmaker Business Technologies provides a sophisticated, integrated, technology ecosystem to manage costs and challenges in the areas of crew performance, network punctuality, and fuel performance.



Many airlines fly blind in the area of crew utilization, productivity, and costs, and decisions are made on the basis of past experience or intuition

Founded in 2003, Rainmaker focuses on maximizing productivity and minimizing costs of airlines large and small. With a "connected airline: connected crew" mantra, the Rainmaker provides its customers with valuable insight into the aspects of operations and crew management that they can control and ultimately improve upon. Fuller states, "With the relentless challenge of 'day of operations' and managing the dynamics of the airline, companies often lack visibility into these 'cost drivers' until many weeks after the bid period has concluded. The effect is recurring cost overruns that leave airline management powerless to intervene." Rainmaker addresses this significant challenge with a full suite of technology-enabled analytics tools that track actual versus budgeted costs for every event that occurs within an airline's operations, especially the ones that impact the crew.

Connected Solution

The leaders of Rainmaker have a long history of providing innovative solutions to complex business problems, supported by powerful analytics platforms that work to the benefit of airline operations and the need to perform at a high level on a paper-thin budget. The company's core capability is the Rainmaker Crew Pay solution. "How pilots and flight attendants get paid is defined within collective agreements which contain complex pay rules

that evolve significantly over time. Because these pay rules are interconnected and relate to all the duties the crew undertakes and the events that happen during flight, all operational events must be tracked and credited in order to correctly pay crew," explains Fuller. The Crew Pay solution automates the content of collective agreements driven by a core rules engine so that accurate tracking and calculations can be performed to process crew pay correctly. The airlines receive meaningful insight into total crew costs and the events that drive those costs, key performance metrics, and variances between planned and actual costs. The Crew Pay solution provides airline management with a whole new level of visibility and control. In addition to fully automating the process, "the Rainmaker platform offers access to pay information for crew members through any device at any time, building transparency and trust among crew and their airline."

In addition to the Crew Pay solution, Rainmaker offers a sophisticated analytics platform for managing crew performance, operations punctuality and fuel consumption. With Crew Analytics, data on every change and adjustment to flight plans and crew schedules are tracked, comparing scheduled to actual operations. Included in these metrics is detailed analysis of crew productivity, unplanned absences, reserve assignments and utilization, detailed cost variances including crew transport, hotel and positioning expenses, and much more. These dashboards

and reports provide airline management with actionable insights into the impact of crew schedule changes in real-time. Fuller states, "Dozens of key performance metrics are tracked and configured to thresholds defined by the airline. Each performance metric is showcased in a series of dashboards that reveal productivity, costs, roster disruptions and the root causes of those disruptions." Essentially, analytics dashboards offered through Rainmaker's

platform display as heat maps to draw attention to issues and variances that can be investigated further to understand the underlying data.

One aspect that allows Rainmaker to stand out among other business analytics platforms is the company's ability to integrate with flight operations and crew scheduling systems that are already in place at the airline. In effect, Rainmaker provides the entire data management ecosystem from automatically extracting, structuring and assembling core data to seamlessly provide the published and performed rosters for each and every crew member plus all related events in addition to configurable capabilities of the analytics products and powerful data visualization. Every

commercial airline has the ambition to manage and track their operational performance at a detailed level. Consequently, every airline is investing in data warehouse technologies and assembling data from across the airline. Rainmaker provides the solution to this challenge and achieves exceptional data accuracy and integrity. Instead of spending millions for an internal IT solution built from the ground up, airlines can tap into the proven power of Rainmaker's technologies to achieve these far-reaching capabilities with far less investment.

Connected Airline

Since embarking on the mission to assist airlines operate in a fully connected way, Rainmaker's platforms have been widely implemented across North America and Europe. Airlines like JetBlue and Virgin America have had the clear benefit of full automation of the pay process,

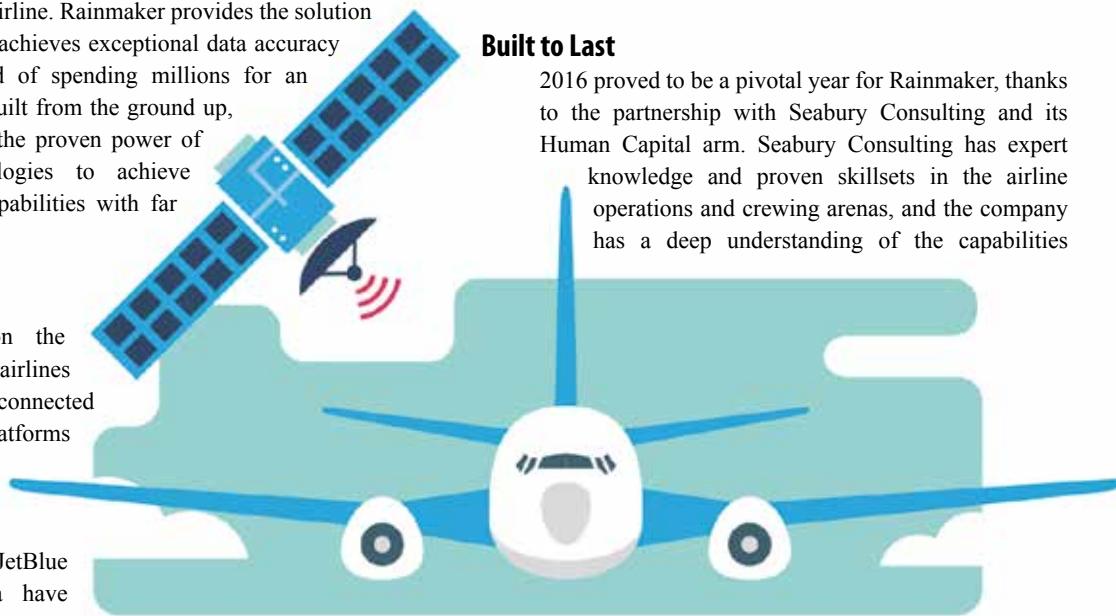
a reduction of manual processing, improvements in pay accuracy and high levels of crew satisfaction. One U.S.-based airline had recently made extensive changes to their collective agreements with crew members that added a new layer of complexity. The airline quickly realized that the current pay processes in place were unsustainable, and they needed a fully automated solution that could handle increased degrees of complexity, which they found with Rainmaker Crew Pay Manager. With Crew Analytics, the airline analysts behind the scenes were able to shift their focus from spending 80-90 percent of their time assembling decision-grade information to spending 80-90 percent of their time analyzing the airline's performance. Additionally, improvements in crew utilization and productivity resulted in cost benefits between 5 and 15 percent of total crew expenses. The airline also implemented Rainmaker's Operations Analytics to monitor on-time performance and delay management across its network, with real-time tracking of delays and the impact on crew and passengers.

Crew Pay Manager solves the immediate problem of accurately paying crew for the work they do in a cost effective way. The Analytics products from Rainmaker give airline management and crew up-to-date, accurate information on the performance of the airline, immediately identifying issues and opportunities for improvement. Early warning and notification of issues allows these key stakeholders to take early remedial action and to smooth out the impact of every day events. The

ultimate benefit is that it puts management more in control, better decisions are made, providing a better experience for crew and passengers.

Built to Last

2016 proved to be a pivotal year for Rainmaker, thanks to the partnership with Seabury Consulting and its Human Capital arm. Seabury Consulting has expert knowledge and proven skillsets in the airline operations and crewing arenas, and the company has a deep understanding of the capabilities



Rainmaker has in helping customers achieve a connected airline. Fuller explains, "The partnership has been an excellent catalyst in bringing our products to the next level, positioning our products with potential customers, and giving us the foundation to grow significantly in the upcoming year." And this prospect has been further enhanced with the acquisition of Seabury Group by Accenture in early 2017. The partnership continues but now in an even more powerful and extended way.

Although current work at Rainmaker has been focused on enhancing dashboards and data visualization, a short term objective is to add predictive capabilities that will drive alerts and notifications to management and crew. Fuller explains, "This translates into early warnings and alerts being issued the minute something outside the acceptable performance thresholds happens or is likely to happen, in order to prompt early action and minimize impact." These notifications would reach airline management and crew on any device at any time, keeping with its connected airline mission. Building strong predictive capabilities in the realm of cost overruns, performance variances, punctuality or network delays allows airline management to have the technology tools they need to make appropriate, cost-saving decisions that transform the crew and end customer experience. Being at the forefront of innovation in the airline industry, Rainmaker's growing partnerships and continued implementation of intuitive tools promises to help catapult customers into a new realm of effective, data-driven operations. CR



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20 Most Promising Aerospace Solution Providers - 2017

Following a trail of productive but understated years, the aerospace industry is now gearing up to revamp itself by espousing digital innovations. Aerospace companies have moved beyond prototyping and are leveraging additive manufacturing technology to design and build products ranging from sophisticated engine and wing parts to simpler yet customized items like food trays and armrests. Powering this upswing is machine learning through the injection of advanced analytics into the operating system of aircraft machinery. Drawing on M2M and M2H interfaces, sensors fastened to avionics can extract data instilled into analytics platforms to gain insights for making effective decisions.

Meanwhile, the ushering of co-bots is spawning the perfect storm for aerospace as it enhances workers' productivity by minimizing the amount of rework while also rendering faster throughput and higher quality. As a result, smart automation makes its way into the industry further enhanced by

technologies like augmented reality—the use of smart glass for examining an airplane's metal surface.

On the digital front, blockchain stands a high chance of transforming the face of aerospace through improved transparency and automated transactions between supply chain partners globally.

The market today abounds in a bevy of aerospace solution providers equipped with state-of-the-art technologies that can help companies gain proactive ideas to tackle looming challenges. Companies aiming to mount higher in the value chain look for the best solution providers. CIOReview's distinguished panel comprising CEOs, CIOs, VCs, industry analysts along with its editorial board has reviewed the top aerospace solution providers and shortlisted the ones that are at the vanguard fulfilling the urgent demands of the industry.

We present to you CIOReview's 20 Most Promising Aerospace Solution Providers 2017.

Rainmaker Business Technologies

recognized by **CIOReview** magazine as



An annual listing of 20 companies that are at the forefront of providing solutions for the aerospace industry and impacting the marketplace

Company:

Rainmaker Business
Technologies

Description:

Help airlines manage operating costs in the specific areas of crew, network and fuel performance

Key Person:

Brendan Fuller
CEO

Website:

rainmaker.aero