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iPads Take Flight At Southwest

Southwest Airlines is deploying a new mobile platform that will replace bulky paper manuals for flight attendants and improve inflight POS operations.

Ron Freer (left), senior manager of strategic planning and projects, and Tom Raffalski, manager of inflight safety standards and regulatory compliance, at Southwest Airlines

iPads

Take Flight At

Southwest

by Brian Albright

Southwest Airlines has more than 50,000 employees, who provide service to more than 100 million customers annually. Southwest operates more than 3,900 departures a day during peak travel season across a network of 98 destinations in satisfaction and service, and this level of service is something Southwest strives to maintain in all its customer-facing activities — from its baggage policies to the often absurdly funny safety speeches the flight attendants make before take-off.

Southwest Airlines is deploying a new mobile platform that will replace bulky paper manuals for flight attendants and improve inflight POS operations.

the United States and seven additional countries. Based on the U.S. Department of Transportation's most recent data, Southwest is the nation's largest carrier in terms of originating domestic passengers boarded. The airline has consistently been highly ranked when it comes to customer

When Southwest decided to invest in a recent deployment of more than 14,000 iPad Minis to its flight attendants, achieving ROI and focusing on customer service were two of the company's primary objectives. The iPad Minis are initially being used to replace paper flight attendant manuals that





Ron Freer (left), senior manager of strategic planning and projects, and Tom Raffalski, manager of inflight safety standards and regulatory compliance, at Southwest Airlines

photos by Dan Bryant

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the crews have to carry, but other applications are also in the works. Eventually, the iPad Minis will also replace the aging point of sale devices used on board to collect payment from passengers for alcoholic beverages.

The transition from paper manuals to electronic ones is regulated by the Federal Aviation Administration (FAA). The FAA approved Southwest to begin the transition process in June of 2016. Southwest flight attendants will use the iPad Minis as part of the Electronic Flight Bag (EFB) initiative. With approval from the FAA, flight attendants will replace the 700+-page manuals with an iPad Mini that will give them complete access to all of the safety and regulatory information contained in the manuals that they need to successfully do their jobs.

All Southwest flight attendants have to carry a flight attendant manual, more than 700 pages of information that is usually contained in a binder. These manuals govern everything the flight attendants do, from where they stand when customers board the airplane to the types of announcements that are made during the flight. "The flight attendants don't have to refer to the manual very often, but if there is something they don't know, they use that manual as a reference," says Tom Raffalski, manager of inflight safety standards and regulatory compliance at Southwest.

Form Factor Selection: 7-Inch Versus 10-Inch Tablet

Southwest pilots had already ditched their paper manuals in favor of a mobile solution. Three years ago, Southwest pilots began carrying full-size iPads that include an electronic copy of the pilot manual via an application from Comply365. "We knew iOS was the right solution for us," Raffalski says. "So it made logical sense for us to go with the same platform for our flight attendants, even though we are using the iPad Minis this time."

The company opted to use the iPad Mini for this deployment because it was roughly the same size as the paper manual that flight attendants carried, and research proved it would be easier for the flight attendants to carry the smaller tablet. "We did some studies on different-size devices and got feedback from our flight attendants," Raffalski says. "They all preferred the iPad Mini."

Enlisting Enterprise Mobility Management Services

For such a massive roll-out, Southwest knew it needed to find a fulfillment partner that could help them provision and deploy thousands of iPad Minis across the country. "We knew it was going to be a huge undertaking to complete a project

The Benefits Of A Mobile Deployment Partner

Deploying a large number of mobile devices can be a daunting task. You can't just go to the Apple Store and pick up 14,000 iPads — the devices have to be configured, provisioned, secured, and delivered to end users. That was the challenge that Southwest Airlines faced when it planned to provide just that many iPad Minis to its flight attendants as part of its Electronic Flight Bag project.

Southwest sought a partner to help purchase the devices, load the correct software, and make sure they were efficiently delivered to its flight attendants across the country. "As an enterprise, we can't buy devices directly from Apple," says Tom Raffalski, manager of inflight safety standards and regulatory compliance at Southwest. "We had to look at which companies could furnish that many devices



The Stratix team purchases, configures, and kits iPads for Southwest Airlines and also provides post-deployment support.

in short order, configure them, and get them into the hands of our employees."

Southwest elected to lease and configure the devices from EMM (enterprise mobility management) provider Stratix. Additionally, Stratix provides enterprise-level mobile deployment support. Stratix also helps organizations like Southwest complete a mobile business process review and readiness plan, develop an acquisition strategy for the hardware and applications, and create a customized support plan. Not only does Stratix purchase the mobile devices and configure the software, it also provides end-user activation and customized kitting services. The company offers 24/7 technical support, spare pool management, and device repair and decommissioning as well.

Southwest's iPads are delivered directly to Stratix from China. The company then loads the Comply365 software for the electronic flight manual application and configures the tablets to meet the needs of Southwest's flight attendants. Flight attendants order their devices using an online portal that Stratix provides. Once the devices are delivered to the flight attendant at work or at home, the employee enters the appropriate credentials and completes a brief set-up process before using the tablet. In addition, Stratix also provides post-deployment support for Southwest. For more information on the services Stratix provides, visit www.stratixcorp.com.

that required hardware distribution to more than 14,000 flight attendants,” says Ron Freer, senior manager of strategic planning and projects. “We didn’t have the manpower or capacity internally to buy them, kit them, and ship them.”

The company issued a request for proposal and began looking for companies that could help exe-

comfortable with, and we executed a solid communication plan to help alleviate any anxiety. By the time we implemented this change, everyone involved was well aware of what was happening and what to expect.”

Southwest selected 200 flight attendants (out of 1,100 applications of those interested in participating) to pilot the iPad Minis and Comply365 tool. The company



Southwest Airlines took a COPE (corporate-owned, personally enabled) approach to its iPad deployment. The airline encourages its flight attendants to view their iPad as their personal device and to feel free to load personal applications in order to promote adoption.

selected staff in various geographies and also varied the group by age, seniority, and technical skills to provide as much variety of feedback as possible on how well the new solution would be accepted by the team. “For 10 months, we collected thousands of surveys from the field,” Raffalski says. “We tested different cases for the iPad

cute the deployment. Stratix was already partnering with Southwest to provide help desk support for the iPads the pilots carry and offered to provide additional services for the flight attendant application. Southwest evaluated 11 vendors before ultimately selecting Stratix based on the company’s warehouse size, help desk capabilities, and distribution model.

In addition to having the logistics of the deployment lined up, such as kitting and shipping the devices, Southwest also needed to ensure that its end users would embrace the change. The implementation team looked at similar projects at other airlines that had already undergone the transition from paper manuals to tablets, to learn from their experience. “We learned a lot of lessons by looking at what other companies had done,” says Raffalski. “Other carriers had identified a solution and then told their employees about it. We had our end users [our flight attendants] help identify a solution that they felt

Minis, asked what the users’ concerns were, and we let the work group tell us how to develop this project. Doing so allowed us to give them a sense of ownership.”

Finding The ROI Of Mobility

Many airlines have begun going paperless, but Southwest needed to determine that there would be a clear ROI for the new mobile technology. The company is known as a price-conscious carrier, so any investment would have to be backed up by real savings and benefits. “We didn’t want to eliminate paper just for the sake of doing it,” Raffalski says. “For the price of 14,000 iPad Minis, you can buy a lot of paper. We had been hesitant to implement for that reason.”

The paper replacement was not insignificant, however. The flight manuals are updated four to 12 times per year, so flight attendants are frequently removing and adding pages. “You always run the risk of having a manual that hasn’t been



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Tom Raffalski, Southwest Airlines

properly updated, and there’s an environmental concern with using all of that paper,” Raffalski says. “However, that in itself doesn’t provide a huge ROI.”

Southwest already had a mobile device in use in the airplanes: the handheld units used for inflight purchases. That hardware was aging and increasingly expensive and difficult to support, and therein Southwest found further ROI potential. “We found that by implementing the iPad Minis for both the manuals and for point of sale use, we could start seeing a real ROI,” Freer says.

Streamlining The Deployment Process

The iPad Minis are shipped directly from China to Stratix. Stratix then loads the manuals and the Comply365 application on the devices (with iOS 9, the Apple ID isn’t required to preload apps). “Stratix preps each device, logs the serial numbers, and puts asset tags on them,” Freer says. Stratix also created an online ordering portal from which flight attendants can order their devices and select their preferred shipping address. As Stratix receives orders, they pull the devices, scan them, assign them to a specific flight attendant, and then ship them out.

“Our flight attendants are in the air and away from home, so we used the online ordering portal to make it easier for them to have the devices delivered when they were able to be home to receive them,” Raffalski says.

After the flight attendants have the devices, they can set them up using a simple five- or six-step process. Once they finish entering their employee credentials, they are ready to go. The devices are corporate-owned, personally enabled (COPE), so

employees are allowed to load personal apps on the devices as well.

According to Freer, Southwest opted to issue an iPad Mini to every single flight attendant in order to improve adoption rates. “If they don’t see the devices as their own, then the devices are more likely to get tossed around in the cabin,” Freer says. “We had to sell our executives on the notion that this was the right thing to do. We felt that taking a COPE approach would help the workforce to engage with the devices and take good care of them.”

COPE Approach Demands MDM

Southwest also uses the AirWatch mobile device management (MDM) solution to monitor and manage the fleet of devices. “With the AirWatch solution, we can wipe the device if it’s lost or reset passwords,” Freer says. “We can assign the device a different profile and lock it down completely if it’s stolen. Even if you took it to an Apple store to unlock it, it would still be identifiable as a Southwest Airlines device.”

There are some things the company opted not to do with its MDM solution. “We don’t track location,” Freer says. “We feel that poses a privacy concern, and we wanted the staff to feel like these were their personal devices.”

According to Raffalski, the biggest challenge of the project was making sure Southwest could successfully complete the application for FAA approval. “It’s a 200+-page application that is very detailed,” Raffalski says. “It took a lot of preparation.”

Flight attendants began ordering their iPad Minis in March of 2016. Southwest opened Southwest Airlines’ Genius Bars at its 10 inflight bases for several months to help educate the flight attendants



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on how to use the tablets. Participants in the original pilot staffed those support resources.

During the transition, flight attendants will have to carry both the paper version of their manual as well as the iPad Mini. “Because we require regulatory approval from the government, we have to go through a process of showing that the electronic manual is a viable replacement for paper and that it’s a safe alternative from an avionics perspective,” Raffalski says.

iPad Minis Save Southwest Airlines Both Time And Paper

The iPad Minis communicate via cellular networks on the ground and use Wi-Fi to receive updates and sync the manuals. During flight, the iPad Minis operate in airplane mode. By shifting to an electronic manual, the company can verify that each employee has received any updates to the manual.

“The application allows us to push content to the pilots and flight attendants and to track who has received the content and who has looked at it,” Raffalski says. “In aviation, compliance is very important, so we have to be able to say that we pushed the information to the iPad and that the person accessed it and read the content. The flight attendants have to enter a code, which provides digital acknowledgement that they will comply with the information.”

For the flight attendants, the new devices not only save them a few pounds of paper that they used to carry, it also saves time when updating the manuals. “It’s time-consuming to get a 300-page revision, spread it out all over a table, and insert all of those pages,” Freer says. “It could take hours to finish a major update.”

The new mobile solution also saves time and money for Southwest. The company has an internal publishing department that works with third-party printers to issue updates to the paper manuals. “We have more than 14,000 flight attendants, so a large revision could involve millions of pages that have to be shipped to all of our locations,” Raffalski says. “Then that paper has to be distributed to each flight attendant. It’s a huge undertaking.”

That undertaking could cost as much as \$200,000, depending on the size of the revision. Once the paper manuals are completely eliminated, Southwest will avoid having to print and distribute those major revisions, saving hundreds of thousands of dollars. “Every time you revise the manual, you are throwing away those old pages as well,” Raffalski says. “It’s not the most environmentally friendly thing to do, so as a company, this helps us be a little more green.”

Using a consumer mobile device does present some challenges, particularly given the frequency with which Apple releases updates to iOS. When iOS is updated, Southwest will test the prerelease of the operating system against its applications to make sure everything still works correctly. “We communicate through Comply365 so we know when we should update,” Freer says. “We have a testing team on standby to take on the new iOS release when it’s available. It’s not a perfect solution, but it’s workable.”

Looking Ahead: Evaluating Potential For Further iPad Use

The second phase of the mobile deployment will see Southwest replacing its existing handheld devices used for inflight purchases with the iPad

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Minis. As mentioned earlier, the handheld devices are reaching their end of life and leveraging the iPad Minis as a replacement will further increase Southwest's ROI on the solution.

Flight attendants will then be able to use the same devices that hold their electronic manuals for the POS application. Southwest plans to use a custom sled to add credit card purchasing features to the iPad Minis, and the company will be able to use its current POS software (GuestLogix) on the new devices.

Once Southwest is through the dual-carry phase of the flight manual implementation and can verify that the flight attendants know how to use the devices, the company plans to launch the POS phase in early 2017. Eventually, Southwest hopes to enable all staff (pilots, flight attendants, ground operations, etc.) to use the iPads to communicate wirelessly and in real time during medical emergencies, weather disruptions, and other unexpected scenarios.

"Currently if there is a medical emergency, the flight attendants notify the pilot and establish a connection via radio to ground," Raffalski says.

"Every airline employs a medical service so they can communicate with a doctor. If they have mobile connectivity and can bypass the pilots, they could use something similar to a Facetime chat to talk to a doctor on the ground and more quickly triage the situation."

Other applications are also under consideration. "We'd also like to add crew scheduling software to the devices in the future," Freer says. "We'd like flight attendants to have visibility into connecting flight information, too. We're considering any functionality that can provide value to the customer experience and help with connections or gate arrivals, weather, and any other data that would make the flight attendants more informed and effective during regular operations."

As always, Raffalski says the focus will be on how the technology can improve customer service. "We're constantly looking at ways we can use this solution to improve service and hospitality," Raffalski says. "We want to recoup revenue once we launch the POS application, but our primary focus is in how we can enhance the customer experience." ●



About Stratix

Stratix delivers, supports and manages mobile solutions for market-leading companies around the world. For more than three decades, innovative enterprises have trusted Stratix for outsourcing their Managed Mobile Services (MMS) solutions to help simplify the complexities of mobile. For more information, follow Stratix on Twitter @stratixmobile and visit www.stratixcorp.com.