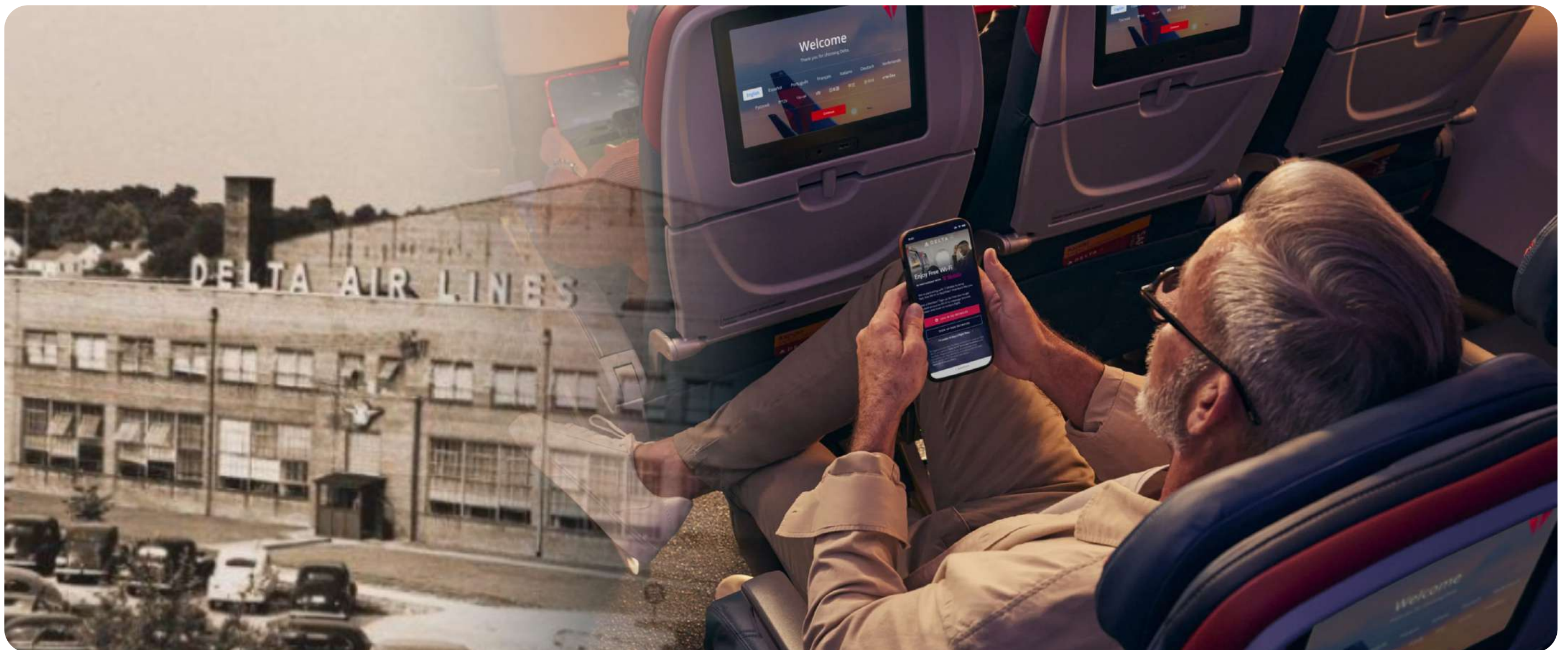


Going Cloud-Optional in the Clouds



01 Background

Delta's flight attendants are the ambassadors of customer experience

For over 98 years, Delta Air Lines has been on a mission to bring people together to create a more connected world and form life-changing memories.

As part of their long history, they pride themselves in staying ahead of the curve through constant technological innovation, enabling their customers to travel with the most personalized experience.

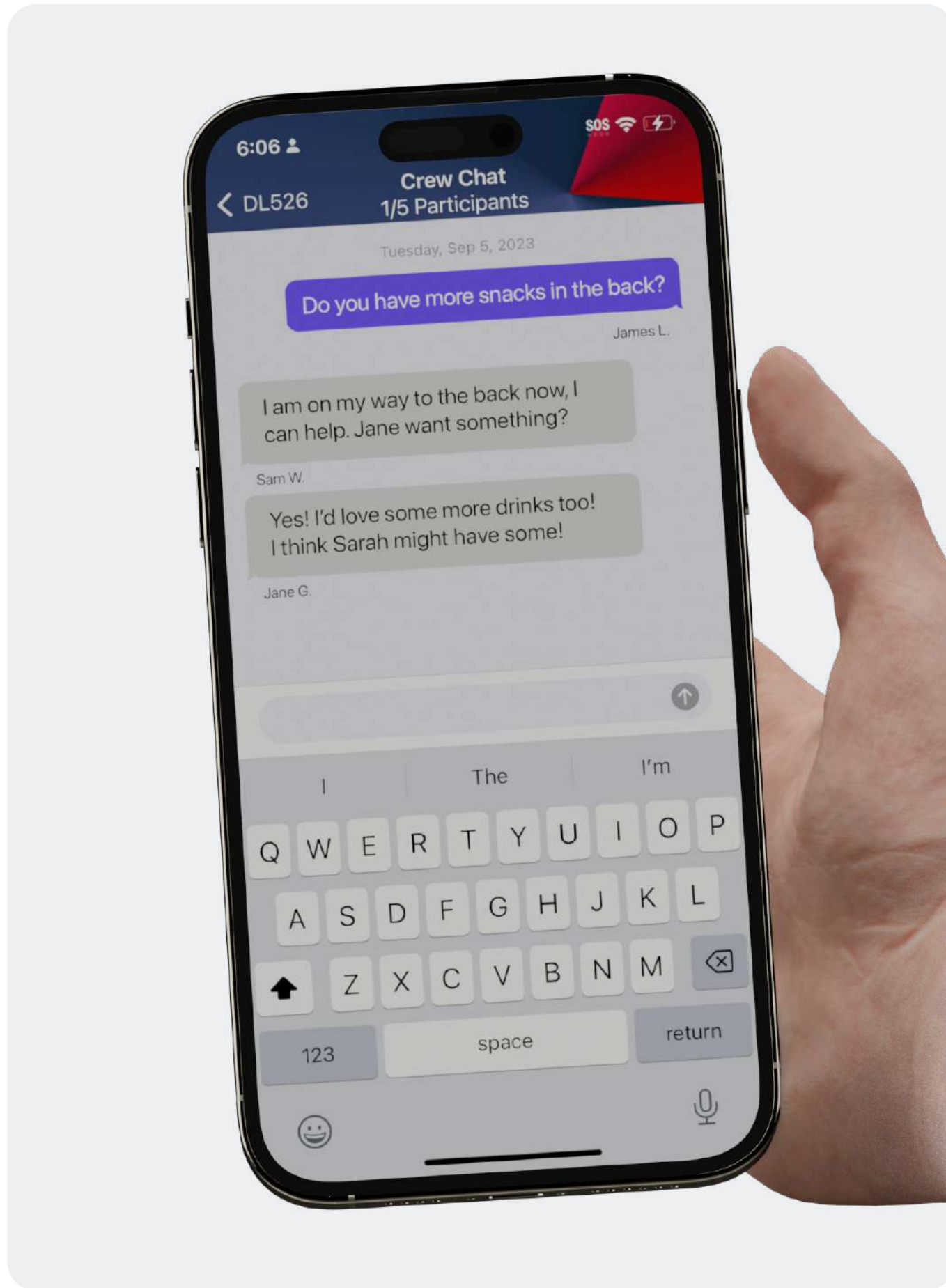
Equipping flight attendants with technology that streamlines their duties is the foundation for this elevated experience; when flight attendants are empowered, efficient, and happy, their customers are guaranteed to have a phenomenal experience.

02 Challenge

Cabin conditions make crew collaboration challenging

At Delta, being a flight attendant means that you are part of a team, but collaborating efficiently at 30,000 feet is extremely tough. Building an application for this environment is even tougher. Cabin conditions are often unpredictable for traditional applications that require a server to sync data. This means that building a collaboration app for Delta crews is completely beholden to perfect connectivity. During take off, landing, and cruising altitude, interruptions can still happen, which affects flight attendant experience of using the app, which in turn negatively affects customer experience.

Delta's development team searched for ways to leverage the peer-to-peer capabilities of iPhones with the hope of building real-time, collaborative experiences for their flight crew. Airdrop was looked into as a solution, but is limited in range for a wide-body flight and quite manual, only allowing for sharing between two flight attendants at a time. This wasn't ideal for a large team in a fast-paced environment.



03 Solution

With Ditto, Delta implemented peer-to-peer sync for MyFlight in just 4 months

Delta's search for reliable data sync at the edge led them to Ditto. Ditto provides a software developer kit that allowed Delta Air Lines iOS developers to implement reliable peer-to-peer sync for MyFlight, their flight attendant mobile portal, in a 4 month development period. Delta was able to make use of the incredibly powerful iPhones already onboard, meaning no in-flight hardware changes needed to happen. Flight attendants can now chat with each other from anywhere in the cabin, making it easy collaborate with team members during the flight.

Ditto enabled devices automatically discover and connect, communicating directly and even through other devices, giving flight attendants full coverage on both narrow and wide body Delta Airplanes. At the edge, Ditto-enabled mobile apps like MyFlight are called small peers. Small peers are capable of creating offline mesh networks. If small peers ever have cloud connectivity, such as through inflight Wi-Fi or upon landing, data automatically flows to the cloud, ensuring important information is preserved from every flight.

04 Measured Benefit

How has Ditto benefited Delta?

- Cloud-optional app architecture removed Delta's reliance on the internet, providing opportunity for technological innovation in the cabin
- Extremely quick development and implementation time for Delta MyFlight - just 4 months for enterprise-grade iPhone application
- Faster response to crew tasks, passenger requests, and inflight situations enabling heightened service quality
- Removal of reliance on wasteful or antiquated communication forms such as paper and flight interphones

05 Looking to the Future

Collaborative Meal Manifest

Delta's most valuable customers in the premium cabin often have preselected meals, and we want to ensure we deliver on their orders. For the remaining passengers who have not preselected their meals, we want to ensure they have the right available meals based on the inventory loaded on the plane. Allowing flight attendants to see inventory changes instantly can help deliver a better customer experience by meeting the expectations of our premium travelers. As Flight Attendants make updates for a passenger's meal assignment, inventory is instantly synchronized through Ditto so that other Flight Attendants know how many meals are still available.