



Home Delivery Using Cellular Drones

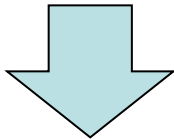
—Japan's first test of cellular-drone delivery service—



Background and purpose

Background

In response to growing needs for airborne mobile-communication solutions, in July 2016, Japan's Ministry of Internal Affairs and Communications authorized Japan's first trials to evaluate the quality of airborne mobile communications and its effect on ground-based mobile networks.

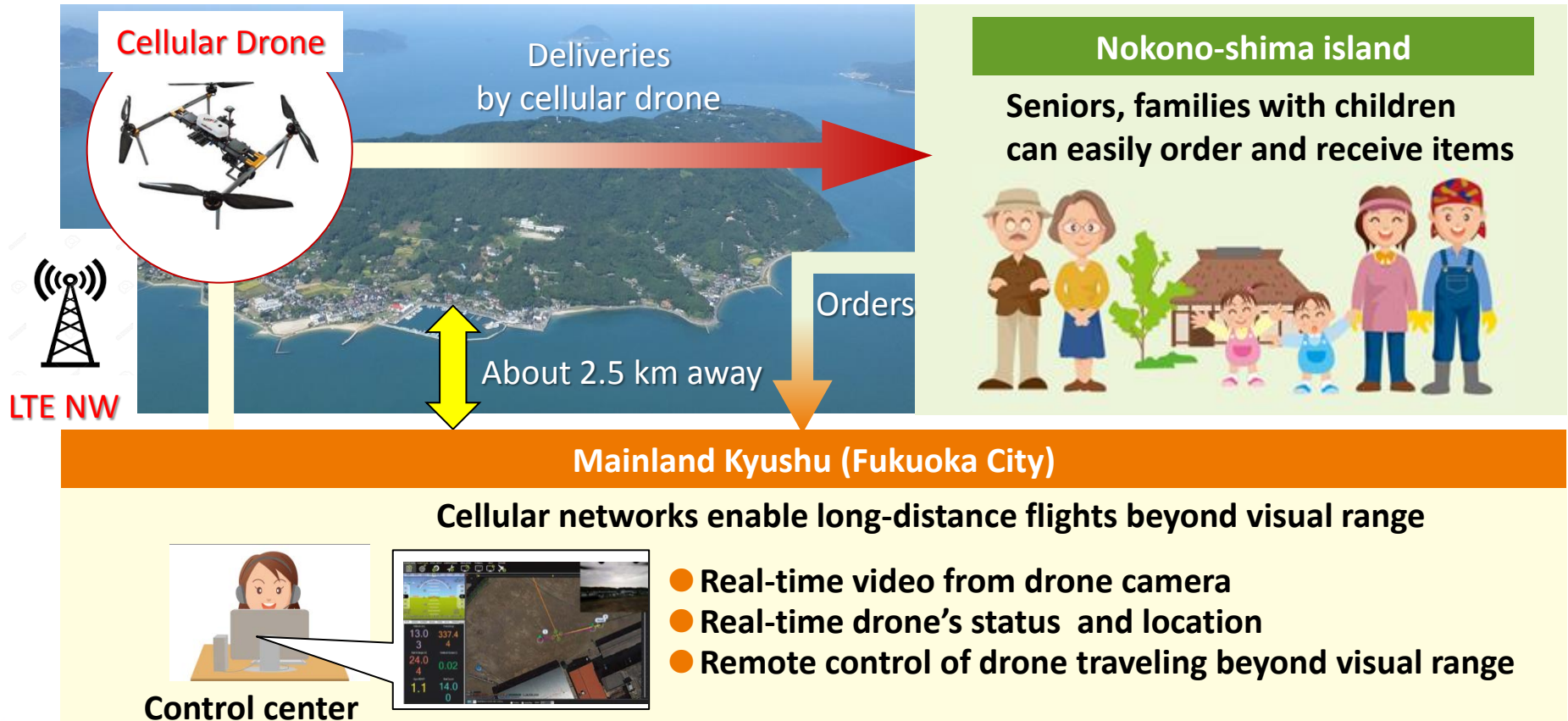


DOCOMO initiated a trial of cellular drones as a new business opportunity to meet evolving needs in society.

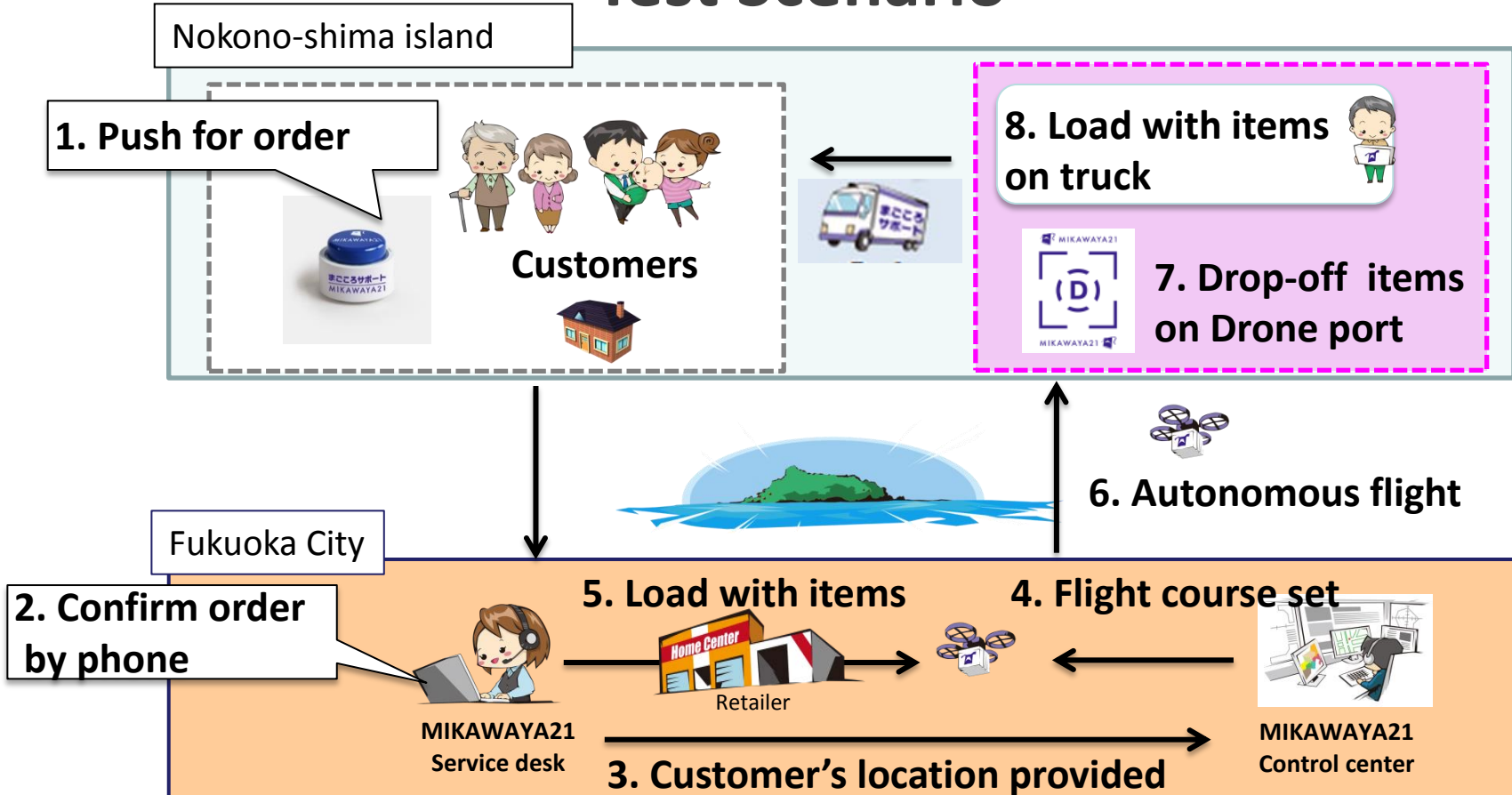
Purpose

- (1) Verify feasibility of longer-distance, beyond-visual-range cellular-drone flights.
- (2) Evaluate the quality of signals in the air and how such services might affect ground-based mobile networks.

Overview



Test Scenario





Roles of each participant in trial



MIKAWAYA21 Service provider

Evaluates user feedback, verifies feasibility and resolves issues to improve services



Drone vendor

Develops and operates cellular drones and evaluates flight data to enhance accuracy of flight operation and monitoring



Mobile communications operator

Provides drone-mounted mobile devices, network infrastructure and other mobile-communications technologies, and evaluates the quality of signals in the air and if services affect ground-based mobile networks.

Going forward...

- Since completing the cellular-drone trials in November and December 2016, the participating companies have been reviewing the results and determining what remains to be done to launch commercial services by fiscal 2018.
- Based on the trials, DOCOMO, together with the other two participating companies, aims to pioneer various cellular-drone businesses offering enhanced safety and convenience.



Various deliveries were made to Nokono-shima island during trials



NTT
docomo