



株式会社 オンネット・システムズ

## Delivering a point-of-sale solution in the cloud for in-flight transactions

**Solution Name:** Onnet Integrated Business Series

**Partner:** Onnet Systems

**Website:** [www.onnet.co.jp](http://www.onnet.co.jp)

**Country or region:** Japan

### Company profile

Onnet Systems develops enterprise resource planning (ERP) solutions. ONNET Integrated Business Series consists of applications for sales, inventory, purchasing, point of sale (POS), and production. Onnet originally developed the applications for large mainframe computers but migrated them to Windows Server as the servers grew more powerful. Now Onnet is migrating the servers to the cloud with Microsoft Azure.

### Microsoft software and services

- Microsoft Azure SQL Database
- Microsoft Azure Virtual Machines

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Onnet Systems is migrating its enterprise-class ERP solutions to Microsoft Azure, which has enabled it to develop more innovative solutions such as an in-flight point-of-sale (POS) solution. With this solution, flight attendants use handheld devices to manage sales during flights. The handheld transmits sales data to Microsoft Azure for processing when the flight arrives at the destination airport. With its rugged, easy-to-use terminal, the solution can create value for any customer that needs a mobile POS solution.

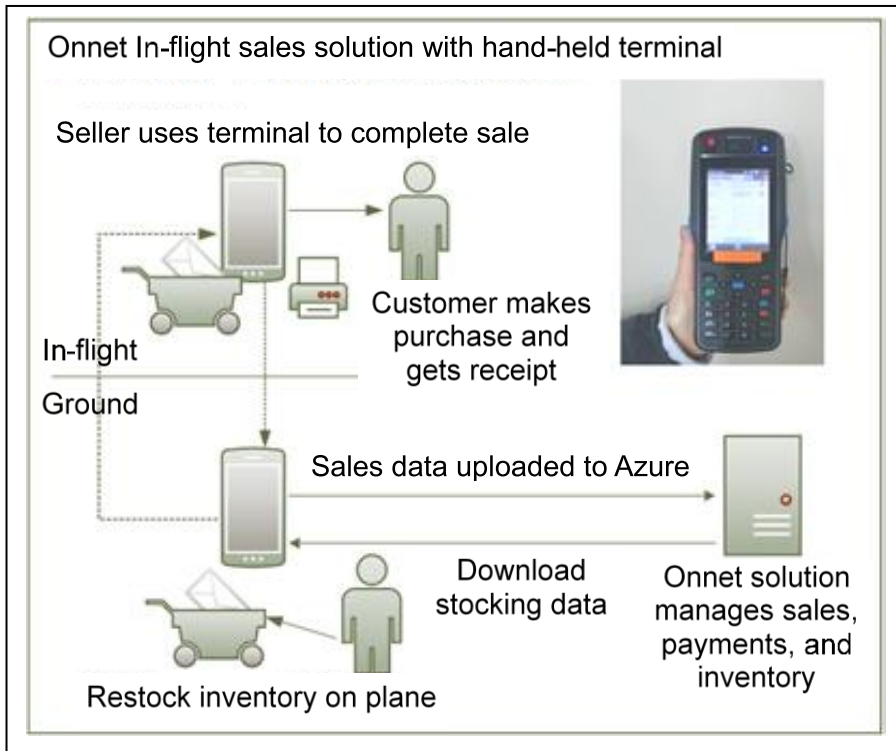
### Increasing sales in the skies

As airlines react to increasing competition, pricing pressures are forcing them charge for services such as food, drinks, or headsets that were previously complimentary. The result is that flight attendants must manage customer purchases of a wide variety of items on nearly every flight, including the duty-free offerings on international flights.

This situation has airlines scrambling to find point-of-sale (POS) solutions that can make these transactions easier so flight attendants can focus on passenger safety

and satisfaction. One airline recently approached Onnet Systems to see if it could adapt its POS solution to work for this purpose.

In-flight sales are a complex endeavor. Airlines must manage a wide variety of products and deal with multiple currencies, limited inventories, potential discounts, and airlines rewards systems. “Onnet POS could easily manage these items in a typical retail location, but an airplane presents a unique set of challenges,” says Hiroyoshi Shigenaga, CEO of Onnet Systems, Inc. The POS terminal must be



the finance department and determines the new stocking requirements for the next flight.

#### Partnership with Microsoft

Microsoft provided support to help Onnet develop the in-flight POS applications and to migrate Onnet's products to the cloud in general. Onnet sees great potential in Microsoft Azure. "We plan to move all of our products to Microsoft Azure in the near future," says Shigenaga. "It makes development easy and helps with sales. We can email the display portion of the product to a potential client and then use it to connect to Microsoft Azure for a demonstration. Microsoft Azure also opens new markets for us. We had focused on large enterprises that could afford the hardware infrastructure required to run our ERP systems. Now small and midsize businesses can use them in the cloud."

#### Seeing opportunities everywhere

With the system successfully deployed and being used on flights every day, Onnet Systems sees more possibilities outside the airline industry. "Any organization that needs to conduct sales in a mobile setting can use our mobile POS solution, because we have a very sturdy device and a flexible architecture that can meet their needs," says Shigenaga.

hand-held and fully functional offline. It must also connect to back-end systems after each flight from airports around the world.

#### Bringing the right technology

"We have a unique approach to ERP systems. Onnet POS separates the user interface screens, data entry logic, and other presentation logic and runs it on the user's PC," says Shigenaga. "Business logic and database are running in the cloud using Microsoft Azure." Because of this separation, Onnet reused much of its existing solution components when developing the new in-flight POS solution. The system is therefore inexpensive to develop and, with the use of Azure, it is inexpensive to deploy as well.

Onnet uses handheld Windows CE devices because they are powerful enough to run all of the presentation software for the solution. The devices connect to back office functions in Microsoft Azure through company Wi-Fi connections at each airport. These back office functions, including sales, currency, and inventory management, run as Azure Virtual Machine instances of Onnet POS and also use Azure SQL Database. Because the handheld devices are small and inexpensive,

the airlines can keep backup handheld devices on hand in case of failure.

Flight attendants find the solution easy to use. It has a simple user interface that is available in Japanese and English. The solution is designed to handle a variety of discounts, which are programmed in advance, and payments can be handled in multiple currencies. Since the solution is flexible enough to meet all of the POS requirements on the airplane, it meets the airlines' requirement that no sales operations should be carried out by hand.

The workflow for in-flight sales has three phases. Before the flight takes off, the system will determine the new inventory that needs to be stocked and arrange for the catering company to deliver it to the plane. The handheld devices on the flight connect to Wi-Fi to download the inventory and the flight attendants confirm that it has been loaded by catering. Next, the flight attendants complete all of the sales in offline mode during the flight. Finally, after the flight lands, the terminal connects to Wi-Fi at the airport and uploads the sales data to Microsoft Azure. The system transfers the required data to