

# Technology that Bridges the Language Gap

Smart translation devices make Japan travel hassle-free.

In 2017, the number of overseas visitors to Japan topped 28 million, a record high. While the influx has been a boon for the economy, it has also presented challenges—how can Japanese people communicate effectively with people who do not speak their language?

While some foreign-language education, mainly English, is standard in Japanese schools, fluency is rare. Another issue is that most inbound tourists are from Chinese-speaking regions, a language not widely taught in Japan. It is no wonder, then, that public and private-sector service providers and companies are looking to technology for help.

Panasonic has stepped up to the plate with two innovative B2B solutions to smooth communications with tourists as well as foreign residents of Japan. The first is a smart megaphone called Megahonyaku, a play on “megaphone” and *honyaku*, or translation. Waterproof and powered by six AA batteries, Megahonyaku combines a standard megaphone with a rechargeable smartphone, but it does not require an internet connection to work. It can instantly translate Japanese into English, Chinese, and Korean, as well as play over 400 preset phrases and more than 4,000 sentence patterns in all four languages, on a loop if desired.

Launched in 2016, Megahonyaku is designed for use with crowds—at maximum volume, it can be heard about 100 meters away. It is ideal for use in airports, railway stations, public spaces, and large shops, such as department stores. These, along with security companies and local governments, have been its first users. In a recent demonstration by Panasonic, the device played back phrases, such as “Please line up in single file,” and “The train is departing. Please be careful.”

“Sometimes airports are faced with massive congestion,

with thousands of people waiting due to flight delays, and foreign travelers may not understand information given by staff,” says Kazuyuki Tanaka, a manager in Panasonic’s Connected Solutions Company. “Megahonyaku can help out in these situations, as well as in times of disaster.”

The firm’s other solution is for one-on-one settings. Taimen-honyaku, or face-to-face translation, is a tablet with two tabletop microphones. Unlike the Megahonyaku, it is connected to the cloud and uses deep learning technology to translate speech in Japanese, English, Chinese, Korean, and Thai. Commercialized in 2017, it is being rolled out at tourist information centers, hotels, tax refund counters, car rental agencies, local governments, and other places where

non-Japanese speakers might need communication support.

While there are many mobile device translation apps, Taimen-honyaku has dedicated hardware that makes communication a snap. As with smartphones, voice recognition is not perfect, but its twin microphones ensure a high degree of fidelity while recording. Users tap on-screen buttons while speaking, and their words are translated instantly and displayed as text. With a voice-activated Web search function, the 10-inch display can also be used to show maps, directions, and images of souvenirs that a tourist might be seeking.

“This translation technology was developed with the National Institute of Information and Communications

Technology, and for Japanese and foreign languages, we believe it’s the best in the world,” says Tanaka. “But having the ability to display images can help when it’s difficult to explain something in words, like what exactly a *yukata* robe is to someone who’s never seen one.”

Panasonic plans to continue improving the accuracy of the tablet ahead of the Olympic and Paralympic Games Tokyo 2020, which will likely mark a further expansion in the number of visitors to Japan.

“We’re working toward a world with error-free translation,” says Tanaka. “By deploying multilingual translation technology, we would like to resolve lost in translation problems with large numbers of visitors to Japan.”



Megahonyaku is expected to be used at airports, train stations, and intersections, places where lots of people gather.