

**My Account** (<https://www.rfidjournal.com/account>)

**Saved Items** (<https://www.rfidjournal.com/account/saved-items>)

**Search**

**Log Out** ([https://www.rfidjournal.com/account/customer-logout?\\_wpnonce=6d0efd9974](https://www.rfidjournal.com/account/customer-logout?_wpnonce=6d0efd9974))



**NEWS** ([HTTPS://WWW.RFIDJOURNAL.COM/CATEGORY/NEWS](https://www.rfidjournal.com/category/news))

# NFC Makes Lost Pet Info Digital to Hasten Rescues

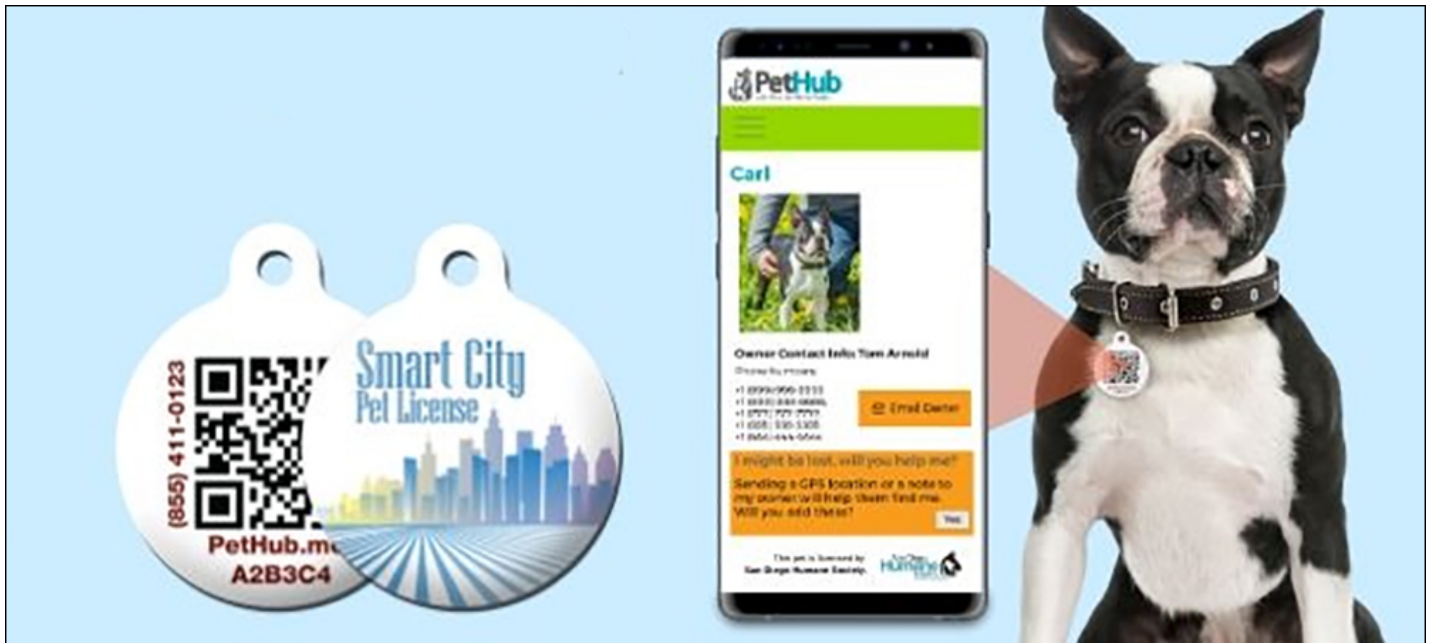
BY CLAIRE SWEDBERG

**PetHub has added Near Field Communication to its tags so owners can identify dogs or cats with the tap of a mobile phone, enabling the return of lost animals and their identification at pet-centered businesses.**

**Jul 20, 2021** The loss of a pet is a common and stressful experience for their owners, which usually ends well once a missing dog or cat returns home on its own. But according to a 2012 survey conducted by the ASPCA (<https://www.asPCA.org>), 15 percent of surveyed pet owners had lost their pets during the previous five years, and 15 percent of them never recovered their "fur babies." That number was higher for cats than for dogs.

PetHub (<https://www.pethub.com/>), a Washington State-based technology company, has developed a tag- and server-based solution by which a pet's identity and profile can be stored in the cloud. That data can then be accessed by scanning a QR code on the animal's tag or,

most recently, by tapping the Near Field Communication (NFC) tag embedded within it. The NFC functionality, which employs a 13.56 MHz chip compliant with ISO 14443, is increasingly being leveraged by businesses where pets are managed in larger volumes, such as doggy daycares and bars.



Anyone with a smartphone that has a built-in NFC reader can use the system to identify a lost animal. July is Pet Loss Prevention Month, an awareness campaign that PetHub launched to bring attention to the problem of missing animals. PetHub was founded in 2010 by former Microsoft employee and entrepreneur Tom Arnold. On average, the company reports, 10 million cats and dogs go missing across North America.

The first thing most people do if they find an unaccompanied pet is look at its collar tag, on which the name and phone number of the animal's owner are typically stamped. That tag is often difficult to read, however, with numbers and letters worn off due to wear and tear, or simply because they are worn by a wiggly or shy pet. Since the PetHub tag was released, says Lorien Clemens, the company's CEO, the QR code printed on the front of it, containing the PetHub app, has made it possible for individuals to view considerably more data about the animal on their phone.

Users would first create their pet's online profile, including such information as its name, breed, age, medications and allergies, along with multiple emergency contacts. They would link that profile to the QR code on the tag, then pay for the service on a monthly or annual basis, either for a single pet or for a family of pets. A good Samaritan who finds a lost animal can simply access its tag and hold their phone in front of the QR code to view such information as how to best return the pet to its owner.

There are currently 3.5 million PetHub digital IDs in circulation, Clemens says, with 700 to 1,000 new pets joining the site daily. Most are using the QR code tag, but new tags include NFC to enable people to access data faster, and with less handling of an animal and its collar. The company first built its animal-identification platform in 2010, then filed a patent for NFC technology use in 2012. However, the limited availability of NFC in smartphones, especially iOS devices, meant that functionality use was limited, Clemens recalls.

The company had looked into other wireless technologies as well, such as Bluetooth, but it found Bluetooth transmissions to be less reliable. The signal between tag and smartphone was often lost, Clemens explains, even when a tag was within close vicinity of a phone. "The dog could be around the corner," she says, "and the system [would] tell you the dog was out of range." Additionally, some Bluetooth tracker systems, such as Tile and Apple AirTag, tend to require that an app be open to operate. The company felt the Bluetooth technology would not properly serve the application.

"For us," Clemens states, "if the product is out there, it has to be reliable enough to get the pet home. It can't just be cool—that's not enough." In the past few years, she says, NFC functionality in smartphones has become more ubiquitous, and as a result, the company has "dusted off the NFC." With this short-transmission version of RFID, the challenge was to build the technology into the metal tag in such a way that it would transmit data reliably and sustain the environment to which it may be exposed when accompanying a busy dog or cat throughout its day. Thus, the NFC chip is encased in thick epoxy, with a metal ring to enhance durability.

The QR code is still the most commonly used technology in the tag, Clemens reports, adding that COVID-19 pandemic has made consumers more comfortable with scanning such codes. Many restaurants now have QR-code-based menus and ordering, for example. "It's a very successful technology for us," she states. In fact, people tend to be so comfortable with the codes that most will not hesitate to scan one on a tag.

According to Clemens, 96 percent of pets that go missing are returned within 24 hours or less. NFC brings a new value, however, for when scanning QR codes is not possible. For one thing, the codes require people to reach under a dog's muzzle and lift it up in order to scan the tag. "You have the 'dog wiggle syndrome,'" she says, which makes QR code scans challenging. Businesses sometimes need to be able to identify an animal very quickly, and that's an application which has led to multiple wide-scale deployments of the NFC tag.

"There are a lot of applications that are really, really exciting," Clemens says. For instance, the system is being used by doggy daycares, spas, boarding sites and dog-friendly bars. Pet handlers at a business can simply hold a smartphone near each animal (their client) and view not only the pet's identity but other key information, such as whether the animal is up to date with its shots. The solution can provide other details, too, such as whether a dog is a "good citizen"—in other words, whether it has a clean record of playing well with other pets. What's more, the technology can confirm that an animal has been through specific behavioral training. The data being collected can be customized for each business.

According to Clemens, PetHub's customers are primarily pet parents who typically visit the company's website to meet the needs of a daycare business, or through the recommendations of animal shelters, animal-control departments, municipal governments or pet insurance companies. Pet owners can directly purchase a PetHub kit containing NFC and QR tags to be worn on an animal's collar, an NFC- and QR-coded card for a travel crate, and a key chain card that can provide access to pet information in the event that an owner becomes incapacitated. The travel crate card is plastic-reinforced and is attached to the crate to enable airport personnel or others to access identification without opening it.

The PetHub software allows pet owners to report a missing dog or cat, which prompts the company to alert local area shelters. The company can also notify a pet's "safety circle" of friends and family members if an animal is missing, as well as update them automatically once the lost pet has been found.



([https://www.rfidjournal.com/wp-admin/admin-ajax.php?action=generate\\_pdf&postid=191050](https://www.rfidjournal.com/wp-admin/admin-ajax.php?action=generate_pdf&postid=191050))

SHARE (<https://www.addtoany.com/share>)

## ★ PREMIUM CONTENT

Best Practices

### RFID in Health Care 2021 Report

(<https://www.rfidjournal.com/rfid-in-health-care-2021-report>)

In the health-care field, hospitals and other medical facilities are employing radio frequency ident ...  
(<https://www.rfidjournal.com/rfid-in-health-care-2021-report>)

[More Best Practices »](https://www.rfidjournal.com/category/best-practices) (<https://www.rfidjournal.com/category/best-practices>)