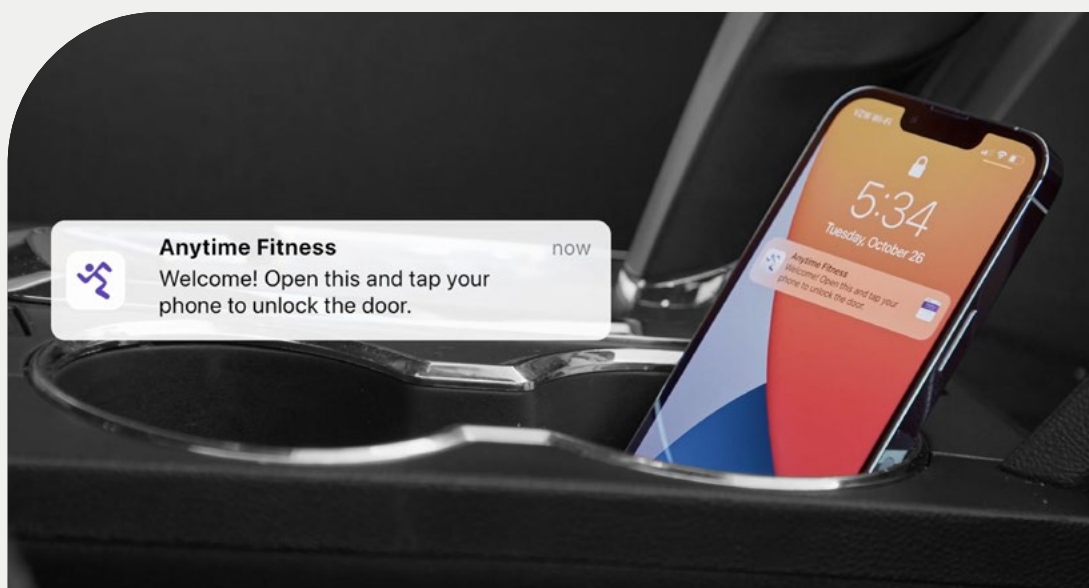


VTAP NFC readers provide world-wide gym access control

About Anytime Fitness.

Anytime Fitness is one of the world's largest franchise fitness brands, with over 5000 locations in 30 countries. Members enjoy 24-hour access to any gym in the network, as well as personalized and group training, a dedicated app, and a caring environment that promotes wellness and self-esteem.

Anytime Fitness gym owners and operators are provided with a complete package of standardised technology and services relating to networks and security, including access control. Members benefit from a familiar and consistent experience, at whichever location they visit, on a world-wide basis.



How to implement an access control platform fit for the future?

With a legacy access management platform that had grown in size and complexity over many years, Anytime Fitness wanted to update its systems to improve reliability and manageability, reduce costs, and also improve their members' experience when visiting the gym.

The old system used proprietary plastic RFID key fobs and readers. A key requirement was for gym members to be able to use their mobile phone, and potentially their smart watch, to enable fast access through the front door.

Having assessed various technical solutions, including QR codes and Bluetooth mobile access, Anytime Fitness settled on using NFC Wallet as the ideal way to deliver a new, mobile-first digital membership ID solution.

NFC Wallet technology enables digital membership cards to be stored in the native Apple Wallet and Google Wallet apps on most mobile phones, and to be read by certified NFC readers in a similar way to a contactless payment. Unlike barcodes, NFC-enabled digital cards are called up automatically by the reader, resulting in a fast, familiar and frictionless 'just tap' experience.

These benefits, and the realisation that the fitness industry as a whole was rapidly evolving and embracing new digital technologies, led Anytime Fitness to Dot Origin's door. The challenge was to work out exactly how to deploy Dot Origin's well-established VTAP NFC reader technology to over 5000 sites while continuing to provide 24/7 member access using the 5M proprietary RFID key fobs already in circulation!



The solution: A customised VTAP100 mobile wallet NFC reader.

Legacy RFID support plus modern controller connectivity

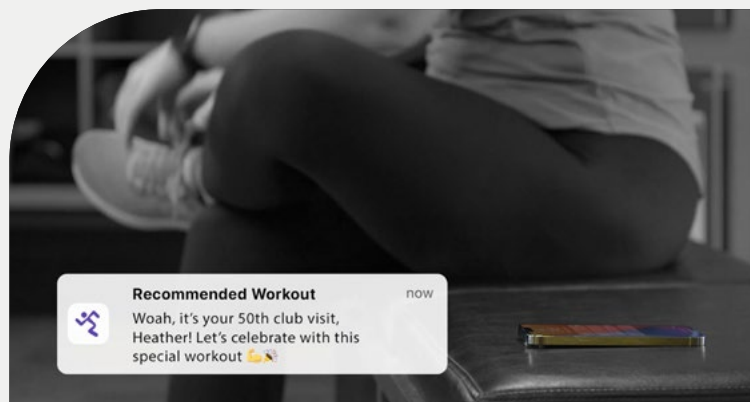
Having concluded that NFC-enabled digital membership cards were ideal for providing a modern gym member experience, Anytime Fitness soon found that Dot Origin's VTAP100 met many of their requirements for a replacement NFC reader. VTAP readers are easy to configure and deploy and are fully certified by both Apple and Google to work with their respective NFC Wallet technologies, Apple VAS and Google Smart Tap.

The readers automatically call up, read and decrypt the appropriate digital membership card from the mobile wallet and can send the stored ID to a connected system via different electronic interfaces. They also read popular RFID technologies, such as MIFARE, enabling mixed environments and migrations from physical to digital identity cards.

However, to meet the requirements, Dot Origin needed to add support for the legacy Anytime Fitness key fobs, so that VTAP100 readers could be deployed in advance to all sites without dropping a beat on the hundreds of thousands of access requests being made daily. The VTAP readers also needed to communicate with a new IoT-style access controller device that was also planned as part of the global technology refresh.

For Dot Origin this customisation was easily achieved without affecting the core reader functionality or certifications, thanks to the modular design of the VTAP100 and the space available within its outer casing. The engineering teams on both sides agreed on the principles, including the use of RS-485 for the communications link.

After a few months of carefully coordinated engineering work and testing at selected sites near to the Anytime Fitness HQ, a new version VTAP100 was ready for rollout!



Ryan Masanz, CTO of Anytime Fitness, says:



Ryan Masanz
CTO

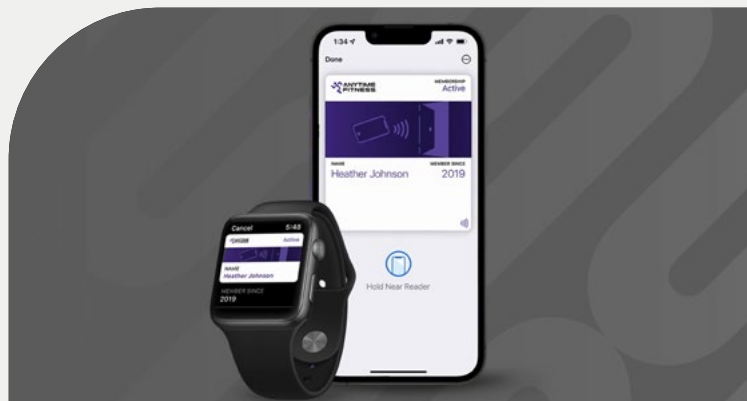
“Having explored the options, we found that the Dot Origin team and their VTAP reader technology was the right platform to bring exactly what we were asking for to reality. The Dot Origin team was with us all the way until we got it done – it was the right choice!”

Having designed and developed a solution that met all Anytime Fitness’ requirements for a new NFC reader, Dot Origin first supplied a few hundred devices for field testing. This also helped Provision, the sister company of Anytime Fitness responsible for security installations, to plan the global rollout.

Once a few bugs had been identified and ironed out, manufacturing began and the rollout proceeded, first in North America, and then to other territories including Australia, UK, Europe and Japan. During this time, designs had to be adjusted to deal with global component supply chain issues caused by the Covid-19 pandemic, but Dot Origin managed these issues and reduced the knock-on effects to a minimum.

By the end of 2023 over 5000 readers had been deployed across North America and Anytime Fitness were able to launch their new digital keys initiative to their franchisees and membership base. They used the opportunity to further promote their app and to also to offer iOS customers additional benefits from Apple.

Within 6 weeks of launch, over 1M access requests had been made using the new digital keys. By early 2024 Anytime Fitness had increased their active app user base by over 500,000, as a direct result of the NFC Wallet integration, and had started their rollout to other countries in Europe and the Asia Pacific region.



“Barcodes and QR codes are full of friction and can be easily copied. The NFC ‘just tap’ experience, the security, and how it gracefully works with the mobile wallets on iOS and Android is something that people are getting very used to doing. It just felt right for us to implement NFC as part of our digital strategy, and this has been proven correct by the excellent response from customers, our increased app adoption and increasing usage rate every day,” says Anytime’s CTO.



Tap tech.

The VTAP100 mobile wallet NFC reader is available with various interface options including USB, RS-232, Wiegand, RS-485, OSDP, Wi-Fi, Bluetooth and Power-over-Ethernet. Anytime Fitness used the VTAP100 native command interface that is available over the various serial comms channels to control and configure the reader via RS-485. This command interface provides a powerful mechanism for sending decrypted NFC mobile pass data from the reader to the host system, as well as IDs read from supported cards and tags. The VTAP comms interface also supports the transfer of encryption key files, which are securely stored within the VTAP reader, and the easy distribution of remote firmware updates if required.

Anytime Fitness decided to generate their own NFC Wallet passes and so their software engineering team designed and developed integrations with both Apple and Google. In each case, the mobile platforms offer facilities for creating and updating passes through various well-documented API calls and mechanisms that are free to use. Dot Origin provided help and support throughout this process, especially around the use of encryption keys and security. The in-house Anytime Fitness pass issuance services were then linked with their membership and app platforms to ensure smooth delivery of the new digital keys to their members, and automatic transfer of old to new IDs on their access management back end.

Intrigued?

Get in touch to find out more.