Wearable Technology by G+D

Transformation through integration

The world of wearables

The smart wearables market exploded over the last five years, and this growth shows no signs of slowing. According to IDC, 49.6 million smart wearables were shipped in Q1 2019 globally, an increase of 55.2% from Q1 2018. Wearables have transformed the way millions of people live, play, work and pay, with new applications for the technology being implemented at a staggering pace. What was once the province of premium consumer technology is now being used in multiple industries in single and multiple-use applications, from payments and access management to transportation and ticketing. Businesses use wearables to enhance their customers' experiences and to promote brand loyalty.

G+D's CloudPay eSE Platform supports these endeavors across multiple industries. A cloud-based holistic solution, CloudPay eSE securely and safely manages the interaction between the wearable technology, the business' internal processes and providers such as Visa®, Mastercard® or other system processors. By implementing an end-to-end secure solution like CloudPay eSE, businesses can leverage G+D's expertise, industry links and technical relationships, helping to reduce the cost of implementation. Relying on a trusted partner can also reduce both the in-house technical resources required on the customers' side and the time it takes to bring a product to market.

Wearables you can trust –
Convego CloudPay eSE

Traditional wearable technology tends to be passive Near Field Communications (NFC)-based implementations, most commonly used for payments. A secure element in the wearable transmits a token to a Point of Sale (POS) device, which then generates a request to payment networks to process a transaction.

CloudPay eSE allows smarter, two-way communications between wearables and businesses. It is a token requestor platform integrated with payment providers such as VISA® and Mastercard®. CloudPay eSE works using Bluetooth or NFC to connect the wearable to the user's smartphone, where the user can manage authentication and access. The app then communicates with the CloudPay eSE which manages the token relationship between the app, the wearable and payment, transit or access networks as appropriate.

The CloudPay eSE enables users and businesses to securely manage identities over their whole lifecycle. For example, a gym may initially deploy a smart wristband for members' access to the building and lockers, but then might want to expand the offering to include cashless payments for snacks or drinks. With the CloudPay eSE, the new functionality and token can be implemented over the air (OTA) quickly and easily - without intensive investment and development on the business owners' behalf.

Use cases for the traditional passive NFC wearable are still valid and an important part of the wearables ecosystem, however, a CloudPay eSE-enabled program will allow businesses to develop a smart and flexible system that becomes a guardian for their customers' digital identities.

Q1 2018

Q1 2019

49.6m
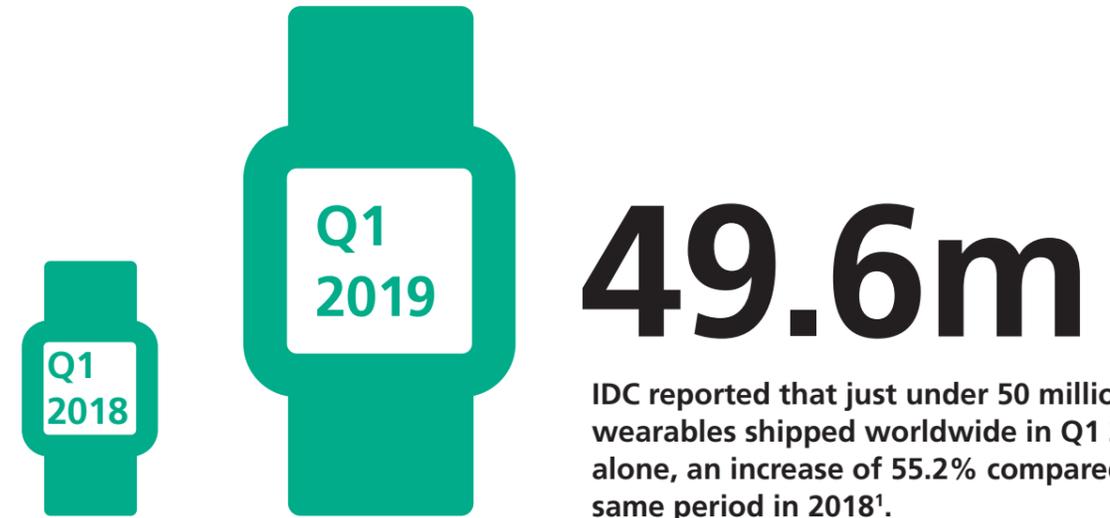
IDC reported that just under 50 million smart wearables shipped worldwide in Q1 2019 alone, an increase of 55.2% compared to the same period in 2018[1].

CloudPay eSE architecture

Issuer → Token Service Providers (mastercard VISA)

G+D CloudPay eSE

Token Requestor Services & Credential Mangement

Companion App

G+D SDK · Bluetooth · NFC
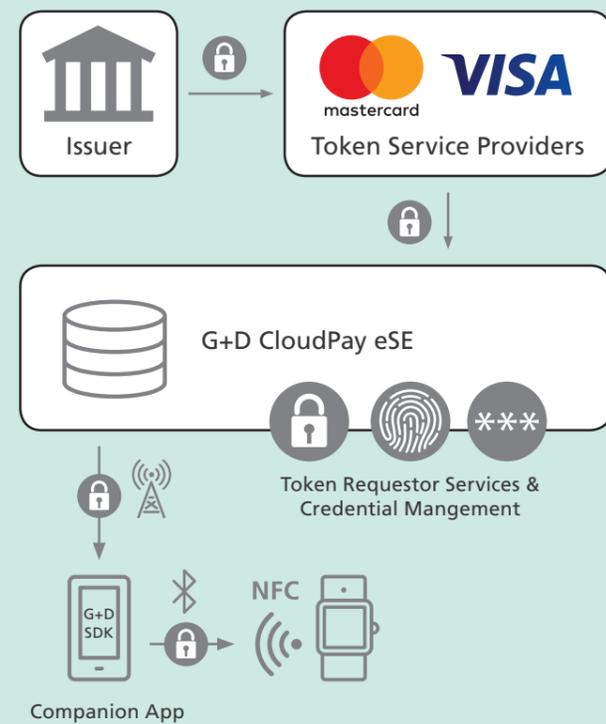
CloudPay eSE as integrator

The CloudPay eSE solution allows seamless integration between different providers in the solutions' ecosystems; whether that be payment networks, transportation standards, access control providers and many more. G+D enables a route to simplicity for users of CloudPay eSE-connected devices - and it's through collaboration and integration that the wearables market will evolve into a long-term, stable proposition.
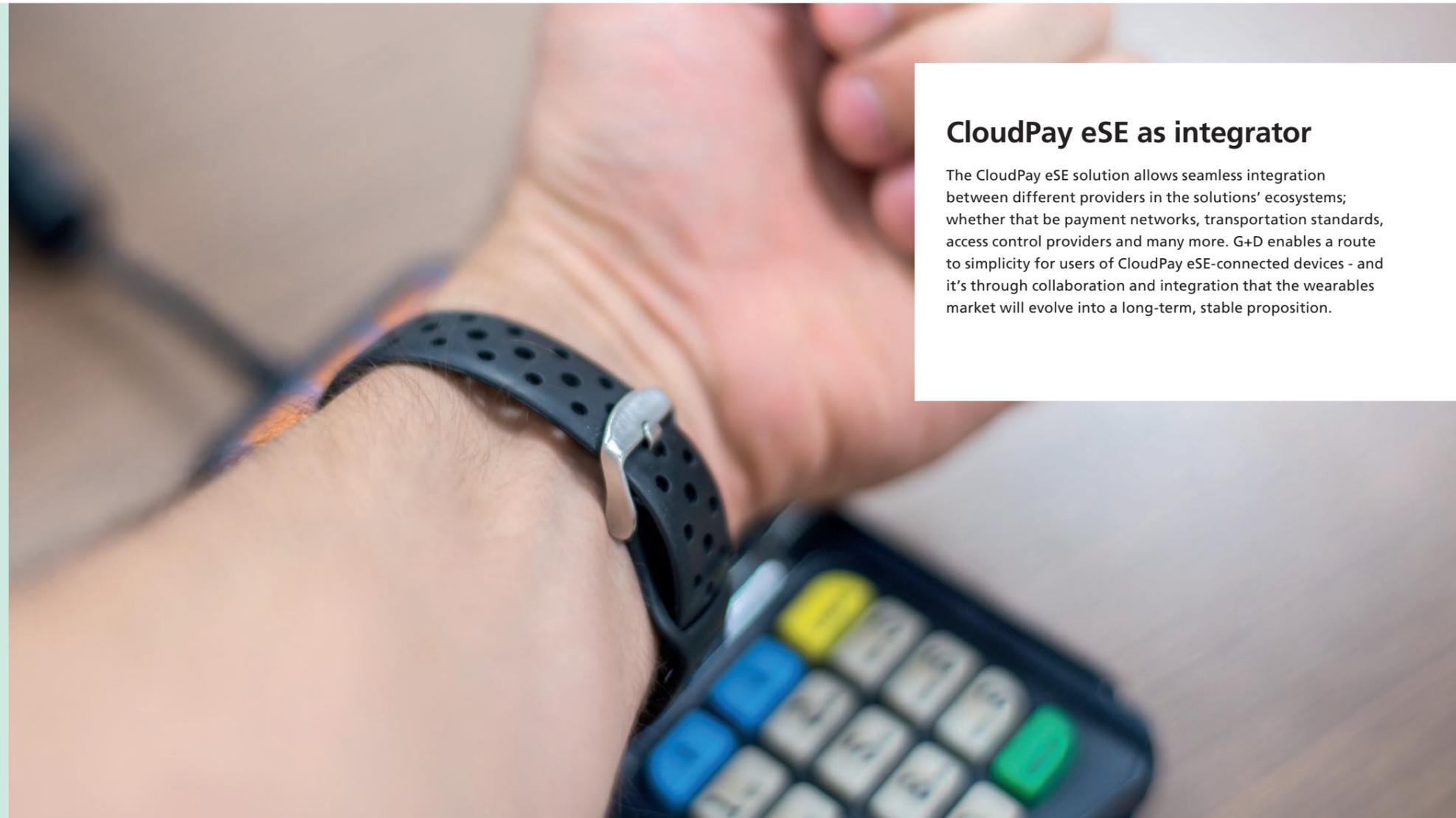
CloudPay eSE in action: Swatch

In 2018, the Swiss watchmaker Swatch launched their first range of smartwatches, designed to make cashless payments easy, fun and straightforward. Their SwatchPAY! range of smartwatches, powered by G+D's backend for tokenization, allows its customers to create a virtual card, linked to a real payment card, and use their watch developed by G+D in cooperation with Swatch to pay for goods and services wherever contactless payments are accepted.

The SwatchPAY! Watch works in conjunction with a SwatchPAY! App developed by wearonize on Swatch's behalf. Setup begins with a SwatchPAY! Box, which activates the service and governs the secure transmission of the virtual card's 'token' between the smartphone App and the SwatchPAY! Watch. This ensures completely secure verification and validation of the virtual card. Once activated the user can then immediately use the watch for payments and can manage card access in their app at any time.

Through adopting a flexible approach through CloudPay eSE, Swatch were able to create a full-featured payment service while still giving Swatch customers the experience they have come to expect from the brand; fashionable design, affordable price, and long battery life.

❝ This latest advance, with the introduction of the fastest and simplest tokenization, makes it easier than ever to pay "forever" – token up your Swatch, swipe it and you're done. SwatchPAY! is simple, stylish and sexy. ❞

Carlo Giordanetti,
Swatch Creative Director

G+D: The perfect wearables partner

The G+D CloudPay eSE solution brings OEMs a market-ready, end-to-end solution in as little as three to six months. Built to GlobalPlatform specifications, the platform has the necessary industry certifications required for fully integrated roll out on day one. Popular wearable solutions, such as payment, transit, ticketing, access – or even acting as a smart car key to unlock and start your car - are possible with the platform today.

G+D's wearables expertise and experience coupled with the CloudPay eSE solution supports OEMs worldwide to make secure consumer mobility a reality. Security has always been our focus, and we bring security to you and your customers no matter where and how the wearable is used.

G+D can offer:
• More convenient payment, access, ticketing, and connectivity methods
• Industry-leading, ever-advancing security capabilities
• End-to-end solution for secure credential-enabled wearables
• Partnerships with industry leaders to ensure first-rate quality and functionality
• Reduced time to market repetition
• EMVCo certified GP (GlobalPlatform) solution

Reduced time to market
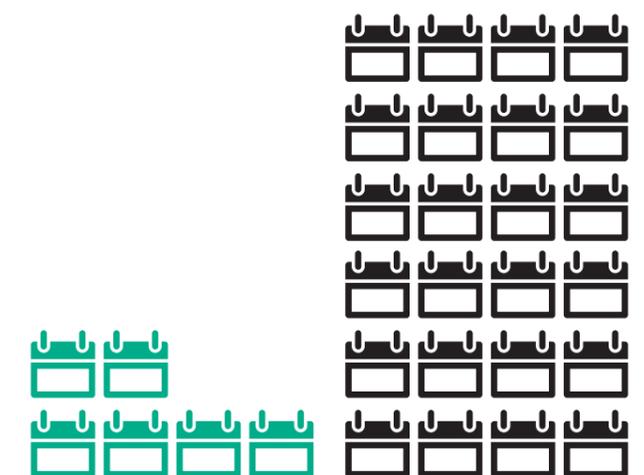
G+D:
Average 6 month

Others:
Up to 24 months

Managing identities in a connected world

G+D Mobile Security is a global mobile security technology company headquartered in Munich, Germany. The company is part of the Giesecke+Devrient group. G+D Mobile Security has a workforce of 5,300 employees and generated sales of approximately EUR 868 m in the 2018 fiscal year. More than 40 sales and partner offices as well as 20+ certified production and personalization sites and data centers ensure customer proximity worldwide.

G+D Mobile Security manages and secures billions of digital identities throughout their entire life cycle. Our products and solutions are used by commercial banks, mobile network operators, car and mobile device manufacturers, business enterprises, transit authorities and health insurances and their customers every day to secure payment, communication and device-to-device interaction. G+D Mobile Security is a technology leader in its markets and holds a strong competitive position.

G+D Mobile Security

Follow us on: