

NFC Forum Innovation Awards S550

Description and Solution:

Socket Mobile is continually innovating to provide solutions that meet or anticipate evolving market needs. Our data capture solutions are designed to be integrated with apps and to give the app provider and the app full control of the reader hardware. Socket Mobile takes care of all the messy details, and our goal is to remove the complexities of data capture. We capture data in the physical world and deliver it to our app partners for processing in their app. We keep our application partners top of mind as we consider new products to include in our growing portfolio of data capture and delivery solutions for enhanced productivity. With all this in mind, we created and launched the SocketScan S550 - a mobile wallet and contactless card reader/writer, designed to facilitate tap-and-go NFC applications.

The SocketScan S550 combines the latest 13.56 MHz contactless technology with Bluetooth LE connectivity and is built for easy and painless integration into apps. The S550 is NFC Forum, Apple VAS, and Google Pay certified and is the ideal reader for numerous loyalty programs, closed-loop payments, age verification via mobile driver's licenses (mDL), vaccine passport verification systems, and countless other applications.

The S550 is compact and portable and can be plugged into power or it can also run off battery power. It's convenient for use anytime, anywhere with applications running on Android (phones or tablets), Apple iOS devices (iPad®, iPhone®, iPod touch®) and Windows. The S550 can be used with applications that support any or all NFC Forum tag types, devices compliant with the ISO 18092 standard, ISO 14443 Type A and B smart cards, ISO 15693 tags, MIFARE®, and FeliCa®. It is Apple Pay "VAS" (Value Added Service) certified, as well as Google Wallet Smart Tap certified. It complies with both Apple and Google NFC protocols on iPhone and Android devices. The S550 is also compliant to read contactless mobile driver's licenses based on ISO 18013-5, which is being adopted by many states, countries and jurisdictions around the world.

Innovation: How is this entry unique or innovative compared to others in this category? Does it have the potential to positively impact the user experience and the future of the industry?

The SocketScan S550 provides leading-edge tap-and-go technology that not only breaks new ground in the NFC industry, but it also delivers an effortless data capture experience for application developers, business owners, and consumers.

The S550 contains a list of features that provide positive and intuitive feedback for a better user experience, including a distinctive lighting scheme and voice prompts and status. At the top of the device, we have included an LED light pipe with an important and distinct purpose in mind. At Socket Mobile, we feel it is important to educate end-users and create cross use case cohesion in visual feedback for end users. With its reading versatility ranging from payments to vaccine credentials, to loyalty cards, to mDL, and beyond, it was crucial that the device provided instant evaluation and confirmation of the credential that was being presented.

Once the S550 reads a credential, it then lights up in a distinguishing color that confirms the type of credential being read at that moment. For payments, the device light ring shows a green light, for

vaccine credentials, a yellow light, a purple light for loyalty programs, for access, a blue light. If two credentials are presented (e.g. loyalty and payment together), the reader can show both colors, half and half. This innovative lighting scheme provides instant feedback to the end-users, confirming that the correct credential has been presented and processed. This gives the user piece of mind that the transaction happened that they were expecting, and this ultimately enriches the user experience. Socket Mobile feels very strongly that this intuitive feedback loop can help to educate end-users and accelerate NFC adoption. In time, we feel this could become an industry standard, and even something we could promote throughout the industry with the NFC Forum. We have an opportunity to bring an element of consistency to a complex ecosystem. The S550 color scheme is completely configurable through Socket Mobile's CaptureSDK tools. If our app partners believe there is a better way to utilize the light pipe feature, we do provide that flexibility. That said, we designed this feature with the idea of setting a consumer experience benchmark for the industry to strive for.

We didn't stop with visual feedback. We have also included the first of its kind audio feedback in the reader/writer. The S550 can talk. Literally. It has fully configurable audio via Socket Mobile's CaptureSDK. Sounds or tones can be used, or completely customized audio can be created and utilized. This is yet another option we are testing with our application partners to see how best it can be used to make their end-user's NFC experience exceptional.

In addition, we created the S550 with the new age of Mobile Driver's Licenses in mind. Many states have already begun to roll out systems for mDL usage, and we had a goal of helping relying parties in industries such as retail, commercial services, and government step into this new revolution of digital ID's. When creating the S550, we found it crucial to integrate the ability to read these credentials into the device, and overall simplify the mDL reading process for the end-user. The S550 is ready to read mDLs out of the box, and can also read credentials following ISO18013-5, which is being adopted in many jurisdictions. New ecosystems are hard to get off the ground. The S550 can immediately step into any mDL implementation and be the DeFacto standard reader, which helps eliminate one big piece of the mDL puzzle. Business owners and app providers can have peace of mind that the S550 will work in their mDL environment, and consumers will begin to recognize and feel comfortable knowing that they can use their mDL to get access to services with a simple tap to our sleek reader.

S550 is also the first cordless reader to achieve CR12 certification from the NFC Forum Certification Program. NFC Forum certification ensures that the innovative S550 can read all NFC Forum compliant tags which number in the billions. Achieving NFC Forum certification is a key milestone for Socket Mobile in our NFC journey, as it guarantees reader/tag compatibility in a highly secure but complex NFC ecosystem. The certification helps give our global customers solace in the S550's ability to be interoperable with myriad mobile wallets and contactless credentials.

Benefits and Competition: What kind of benefits does this product, service, or experience deliver to the end-user? How does it compare to competitors if competition exists?

- Works with supported Bluetooth Low Energy applications (iOS, Android, Windows, Mac, Linux, embedded, etc)
- Meets Accessory Design Guidelines for Apple devices (Release R7)

- Compliant with Android, and Windows product recommendations
- Reading – Reads Apple Wallet & Google Wallet Passes, Fast NFC and RFID Reader (HF tags, labels, smart devices).
- Writing – Write/Encode, lock, unlock tags.
- Long Lasting Battery - Power to last a full shift.
- Reader Mode Templates – reader and HID mode for popular tag types. Customizable with an application over Bluetooth LE
- User Feedback - Intuitive LED indicators and melodies let users monitor battery, Bluetooth connection and scanning status at a glance.
- Keyboard Emulation Mode - The combination of the S550 (reader mode) and Socket Mobile Keyboard provides Basic (or HID) equivalent supposed for use in any app or web form. It emulates a keyboard and delivers the data to the active cursor location. No software installation required.
- Application Mode –Along with Socket Mobile’s CaptureSDK, enables easy integration in your applications to unite the S550 into your ecosystem.
- Sample App - Socket Mobile Nice2CU application, available via Apple app store and GitHub, is a simple membership check-in/ checkout app demonstrating the power and potential capabilities of the solution.
- Wireless (Bluetooth) – connectivity with iOS, Android and Windows devices with long-range Bluetooth connection up to 330 feet (100m).
- Easy Updates - Firmware can be updated over Bluetooth using an iOS or Android app.
- Socket Mobile provides full developer support
- 1-Year Warranty – Reader/Writer is standard with extended warranties available

As for competition, there is not a lot of direct competition. Most reader manufacturers are focused only on EMV payments (i.e. payment terminal readers). Others provide USB based readers which are difficult to work with. Socket Mobile’s S550 is completely wireless. It is built for application providers to easily integrate it into their app by utilizing our CaptureSDK with minimal effort. From there, we take care of the NFC part, and just pass the data captured on to the app for processing.

User Experience and NFC Impact: How does this product deliver a simple, intuitive, or transformative user experience? How central is NFC to the user experience and solution?

The Socket Mobile S550 contributes an innovative user experience by providing measures of convenience, versatility, interoperability, visual and audible feedback (see details above in the “Innovation” category), and security.

With its compact and portable design, the S550 offers the convenience of user friendly-NFC reading anytime, anywhere. Users can utilize the device in-store while plugged into power or via battery power to declutter the environment. The S550 can also be used on the go, at events like pop-up shops, with long-lasting battery power. No industrial design detail was overlooked. The slanted top was

specifically designed to give users the most optimal angle for presenting their mobile phone, wearables and cards.

The S550 was created to work with loyalty cards, memberships, closed-loop payments, digital IDs, and other customer-related services with applications. Together with an application, the S550 can automatically request the appropriate mobile pass from an iOS or Android host device for a franchise, store or event you are attending to ensure a fast and convenient end-user experience. The S550 with an application creates a simple user interaction and a high level of security by capturing a cryptographically generated payload from the mobile pass. The mobile pass then transmits the payload over secure Bluetooth to an iPad or other host device running a connected application. If the connected application requires enhanced security, a key can be imported into the integrated Secure Element and/or mounted in the SAM Slot to provide safe and secure standalone operation without relying on a network connected web service.

Results: Do the metrics shared by the entrant demonstrate positive results and a progressive trajectory for this product, service, or experience?

Socket Mobile prides itself on our vast network of application providers. Presently, we have a network of over two thousand application providers with over seven thousand apps that have integrated our data capture devices. They utilize our devices along with our CaptureSDK to provide their users with quick, reliable, and consistent data capture technology, making their apps more valuable and their end users more productive. Most of these partners today are connected to us for reading numerous forms of data such as barcodes, QR codes, passports, mDLs... the list goes on. But the way these applications essentially work is through our very own CaptureSDK. Socket Mobile's CaptureSDK provides our app partners with the most reliable and consistent data capture performance, enabling the app to efficiently capture data in the physical world and utilize it in-app to maximize the productivity of their solution and increase the overall productivity and happiness of their customers. CaptureSDK has been integrated with this myriad of applications and provides easy-to-use software tools for optimal performance and efficiency.

Our current connection to thousands of application partners is evidence of our goals to make our data capture products simple and painless to integrate, yet extremely trustworthy and reliable. The S550 is just another example of this. We built the S550 with the goal of ease of integration for our application partners in mind. All Socket Mobile hardware is essentially interchangeable from an app integration point of view. This means that all of our current partners that utilize our barcode scanners can immediately start using the S550 without changing ANY code in their apps. This means that thousands of apps that work with barcodes today have a super smooth transition path to NFC if the app providers choose to support contactless credentials like mobile wallet passes. With so many others focused on payment only readers, there is a vacuum in the industry for multipurpose mobile wallet readers. The S550 provides unbiased hardware to the app world to support whatever use case the app owner chooses, and they do not need to become an NFC or data capture expert because we take care of the details for them. We do what we do best, and the app developers can focus on what they do best.

The S550 was built to take charge in the industry, and with our trusted application providers backing, we can proudly say that this product is poised to become a critical ingredient to the next phase of the NFC revolution.

