NFC FORUM

NFC Forum
2025 Annual Report
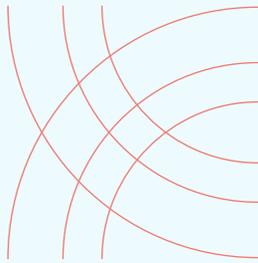
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Foreword from the NFC Forum Board Chair

NFC technology is not new, yet its ability to advance and support new market requirements is impressive. After more than two decades, the NFC Forum is busier than ever; boasting a comprehensive and impressive work program that is driven by our dedicated Board, committed members and important technical partnerships.

Thanks to the diversity of our community, current activities support a range of markets from identity, mobility and access control, to sustainability, automotive and healthcare (to name just a few!). What is common across all these markets is the desire to enable reliable NFC communication – or power transfer – between devices, tags and other form factors, with a simple, familiar and trusted 'tap'.

NFC Forum Standards have proven their reliability. By defining specifications; testing and confirming products will perform as intended; and creating certification and awareness marks, we have established a global, credible, cross-market ecosystem.

Our offer is an appealing proposition to many market players, looking to optimize and build on this standardized framework. With established and new industry experts at the table, we continue to passionately and ambitiously evolve our NFC baseline to support emerging, new and, sometimes, undefined technical iterations and future requirements.

Just as our standards and work continue to appeal to the marketplace, so too does our organization. Our membership is now more than 840 companies, and this year we also welcomed a new Sponsor Member, NuCurrent, a leader in wireless power systems for compact devices. which will now work alongside Apple, Google, Huawei, Identiv, Infineon, NXP, Sony and STMicroelectronics to oversee the delivery of our 2026 Technology Roadmap.

Thank you to everyone who has participated in the Forum over the past 12 months. Your contributions are essential. And, on behalf of the Board, please keep engaging, sharing your views and your vision of NFC's future.

Preeti Ohri Khemani
Chair of the NFC Forum
Board of Directors

Boosting Speed, Reliability and User Convenience with NFC Release 15

NFC Release 15 supports the latest advancements in NFC Forum-certified technologies, in particular, extending the range – or operating volume – of certified compliant NFC contactless connections up to 20mm – 4x greater than the previous range of 5mm.

The extended range helps to support faster, more reliable contactless interactions across a growing number of use cases such as kitchen appliances, wearables, and digital keys. Connections will start sooner and require less precise device alignment, making NFC Forum technologies easier to use than ever, while retaining the critical need for user intent.

NFC Release 15 is supported by its companion Certification Release 15 (CR15), a program to test conformance and certify compliance with the NFC Release 15 Specification. Compliance with CR15 represents a mark of trust that devices operating within the extended read range of 2cm will work as expected. This will help to advance numerous emerging use cases such as using your mobile phone as a digital key to unlock your car, or a smartwatch as your transport ticket.

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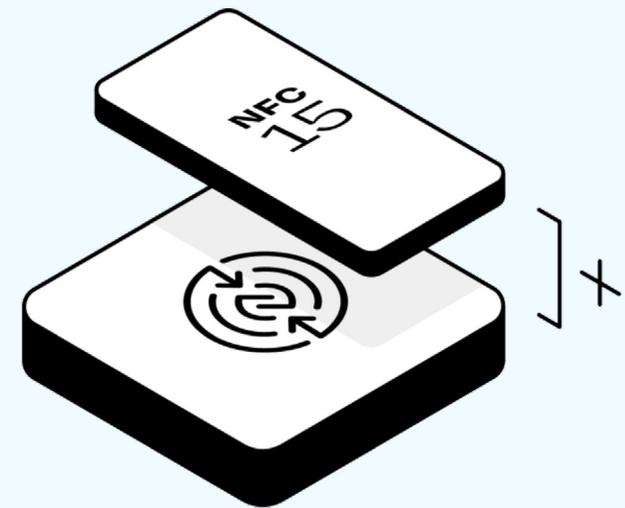
Supporting the Circular Economy

NFC Release 15 also incorporated the NFC Digital Product Passport (NDPP) Standard. First published as a Candidate Specification in March 2025, the NDPP Standard gives brand and product teams a flexible, data agnostic framework to allow a single NFC tag embedded in a product to store and transmit both standard and extended DPP sustainability data using common NFC Data Exchange Format (NDEF) records. The ability for this information to coexist with existing NFC applications lays the foundation for an accessible sustainability data management ecosystem that can vastly accelerate the advancement of the circular economy.

This follows NFC Forum's launch of a Proof-of-Concept Mobile Reader application for Android and iOS that can read on-product NDPP data. The application demonstrates how on-device DPP data can be stored on and retrieved from existing NFC-enabled product or tags. It can also detect if DPP cloud-based data has been tampered with, alerting if the original information added by the manufacturer has been altered.

Digital Product Passport

Advancing Wireless Charging

In 2025, NFC Forum and the Wireless Power Consortium (WPC) issued a joint statement on industry standard development, to reflect that there is no one-size-fits-all solution for the wireless charging of NFC devices. This is due to each category, size and type of device having different technical parameters. These include, but are not limited to, power amperage, battery capacity, form factor (which determines coil shape and size), cost, power efficiency and consumer usage behavior.

This reflects a need for multiple wireless charging standards, further demonstrated by the NFC Forum Certification Release (CR14), announced in January 2025. CR14 added certification for the Kitchen Appliances use case specified by the WPC Ki™ Standard. WPC will use CR14 to certify NFC capabilities used within Ki Cordless Kitchens, with NFC Forum testing and certifying NFC products used within Ki-certified appliances. This helps to ensure all NFC components in a Ki Cordless Kitchen work safely and are interoperable.

Work is also underway between the NFC Forum and the International Electrotechnical Commission (IEC) to establish the NFC Wireless Charging Specification into an internationally recognized standard.
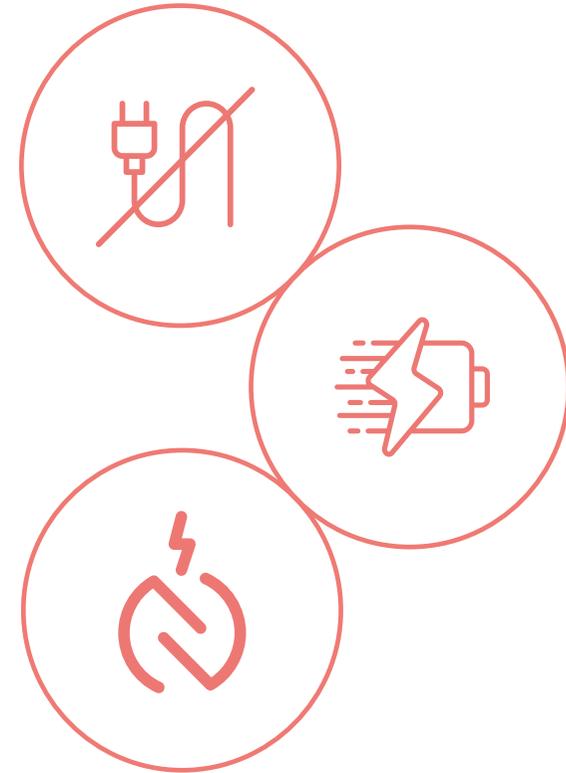
Developing the first NFC Forum Security Profile

NFC Forum has been working to develop its first-ever NFC Controller Security Profile Specification. This profile outlines security requirements and guidance for NFC chipsets to counter recognized and potential threats. Official release of the Profile is expected in 2026, and NFC Forum is also developing an evaluation outline to be used by independent third-party laboratories to confirm that products are compliant against the NFC Controller Security Profile.

By creating a globally recognized security baseline, developers and vendors will have a clear reference on NFC security expectations. NFC user communities can confidently define their security needs and select products that conform to a specified, well understood standardized NFC Controller Security Profile.

New Resources:

The Transformative Roles of NFC Technology and NFC Forum in the Rapidly Evolving Payments Stack

The NFC Forum Retail & Payments Special Interest Group published a paper exploring the role that NFC has played in the evolution of payments technology. It differentiates between the broader utilization of NFC technology and NFC Forum's specifications and protocols, exploring their respective contributions to the evolving payments stack.

Automotive Digital Transformation and the Role of NFC

NFC Forum's Automotive Special Interest Group recently published a whitepaper on the digital transformation of the automotive industry, the role NFC technology plays in it, and how NFC Forum can support car manufacturers to deliver connected, convenient and secure driving experiences.

Technology Roadmap Update from the NFC Forum Executive Director

Mike McCamon
Executive Director
NFC Forum

The NFC Forum continues to assess and refine our Technology Roadmap as market demands shift, and new NFC applications emerge. With varying requirements, use cases, device manufacturers and consumer behavior patterns across different markets, it is important that we work together with our membership and liaison partners to develop global standards for global markets and ensure true industry harmonization.

The intent of the NFC Forum Technology Roadmap is to outline the organization's plans to extend NFC standards and capabilities. We have made great progress on existing roadmap initiatives in the last 12 months with the launch of NFC Release 15 and Wireless Charging developments. So, what next?

Our updated Technology Roadmap in 2026 details six key areas of activity:

· We are exploring the possibility of increasing the **data rate,** the speed at which data can be transferred between two devices. Our aim to is increase certain types of NFC connections by as much eight times the current rate. This will allow for data packets to be transferred faster, delivering a smoother and more responsive user experience in specific markets.

· **Reader Mode Interoperability Testing** aims to deliver end-to-end testing to confirm that new and updated applications successfully and consistently operate on NFC Forum Certified Devices. The outcome of this activity is to improve NFC Reader Mode reliability across all use cases.

· **Security advancements** are planned to ensure NFC Forum Standards offer the guidance needed to achieve industry-wide assurances that NFC technology can withstand known attacks. This includes an NFC Forum Security Profile, relay attack protection and investigating post quantum cryptography readiness.

· Interest in **NFC Wireless Charging** has never been stronger. In addition to continuing our work to extend charging capabilities from 1 Watt to 3 Watts, NFC Forum looks to define device-type specific profiles. These have the potential to accelerate charging speeds and make it easier for product managers to implement.

· **Multi Purpose Tap,** the concept of supporting several actions with a single 'tap', has continued to generate discussion over recent years. Moving forward, we seek to move past the ideation stage and define the technical proposals required to bring the concept to market.

· Following the success of our collaboration with the **Car Connectivity Consortium (CCC)** and Asia-Pacific Connected Vehicles Industry Association (ICCE), we are opening our door to explore innovative new **digital key** experiences to ensure NFC Forum Standards support a range of industry requirements.

If you are interested in any of these initiatives, and would like to join the discussion or learn more about becoming a member, contact me to discuss further.

Technical Committee Update

There were two key outputs delivered by the NFC Forum Technical Committee in 2025, which are the NFC Release 15 Operating Volume range extension and the NFC Digital Product Passport (NDPP).

The first key output focused on Operating Volume range extension for NFC Forum-certified devices and tags, from 5mm to 20mm. This enhancement was initially in response to the needs of the automotive industry to optimize vehicle entry using digital keys. Consequently, extended range sparked widespread market demand across various sectors, who saw how it could improve the user experience.

This work was executed in two phases. The first phase was focused on defining the parameters for performance at an extended range, identifying any limitations and ensuring interoperability across all existing NFC Forum-certified products. Once this consensus had been reached, the second phase validated the findings and tested them in the field with real devices. The outcome was Version 3.0 of the Analog Technical Specification, which includes the introduction of the 20mm operating volume and its associated evaluation procedures.

The second key output was the NFC Digital Product Passport (NDPP) Technical Specification, enabling the use of NFC technology to serve as a data carrier for the DPP. This work centred on defining a flexible NFC Data Exchange Format (NDEF) message structure to hold different types of data on an NFC tag. This includes carrying one or more Uniform Resource Identifier that directs to the online DPP, as well as storing a subset of the DPP data to support offline situations.

In 2026, the NFC Forum Technical Committee will continue advancing the ecosystem by developing the technical foundations required to support emerging use cases. Key roadmap priorities include progressing the NFC Controller Security Profile toward evaluation and recognition as a GlobalPlatform standard, as well as advancing service discovery through Multi Purpose Tap, and other enhancements to meet future market needs.

Teuvo Järvelä
Chair of the NFC Forum
Technical Committee

Compliance Committee Update

The NFC Forum Compliance Committee achieved a record number of annual product certifications in FY2025, certifying 89 devices, a 14% increase from FY2024. Notably, 62% of these are from module manufacturers, and almost 10% are from end-product manufacturers, expanding the areas of the market we service.

The NFC Forum Certification Program also reached an important milestone in our relationship with the Car Connectivity Consortium (CCC), as the 100th CCC Digital Key Reader was certified compliant with NFC Forum Standards. NFC Forum Certification is mandated in the CCC Digital Key Specification, resulting in NFC Forum Standards playing an integral role in ensuring behavior consistency and reliability across vehicle and smartphone manufacturers.

Our relationship with the automotive industry is especially pertinent given that the digital key use case was a key driver in the work to extend the operating volume of NFC Forum-compliant contactless connections. The two key objectives when defining CR15 was to promote a consistent user experience across device classes, and ensure that while mandating new product compliance with the new operating volume, we also ensure backwards compatibility with devices already in the field.

Enabling certification to last the entire lifecycle of a product was also introduced in 2025, with the Inheritance by Operating System (OS) update. This enables device manufacturers to maintain NFC Forum Certification on previously certified device hardware, as recertification is no longer required when making OS updates that do not impact a device's NFC technology functionality.

The work of the Compliance Committee is not completed in isolation. We thank cilab GmbH, COMPRION GmbH and Fime as our approved test tool vendors, helping our members to test their products, ensure compliance with CR15 and benefit from the quality assurance that their product can interact seamlessly with millions of others across countless use cases.

Arnaud Schreiner
Chair of the NFC Forum Compliance Committee

NFC Forum in Numbers

840+
Member Community

6,500+
Resource, Document and Specification Downloads

640+
Certified Products

2,200+
NFC Forum Registered Trademark Licensees

25
Liaison Partners

9
Board Member Organizations

6
Authorized Test Labs

Who is NFC Forum?

Established in 2004, the NFC Forum is a proven technical body that is working to continually enhance the performance and reliability of NFC technology through its Standards, Certification and Marks Program.

As such, identifying new use cases where NFC Forum Standards can or could add value, and encouraging implementors to use the NFC Forum Certification Program and its associated Marks, are key priorities for the Forum.

Led by Board members – including representatives from Apple, Google, Huawei, Identiv, Infineon, NuCurrent, NXP Semiconductors, Sony, and ST Microelectronics – the NFC Forum membership are industry-leading experts who collaborate with a range of industry stakeholders to optimize the capabilities and reach of standardized and consistent NFC Forum technology and use cases across different market applications.

In this way, the organization is helping to ensure a standardized and consistent NFC user experience across the globe.

To learn more about joining the Forum, visit
https://nfc-forum.org/engage/join