



ADVANCING NEAR
FIELD COMMUNICATION
TECHNOLOGY

NFC Forum Certification Program

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NFC Forum Certification is Good for Business

1. Brings together a set of addressable markets whose combined size is greater than the sum of its parts.
2. Clarifies the basis upon which innovation, partnerships, and the NFC Ecosystem will flourish.
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3. Establishes confidence and credibility in the technology, for everyone in the value chain.



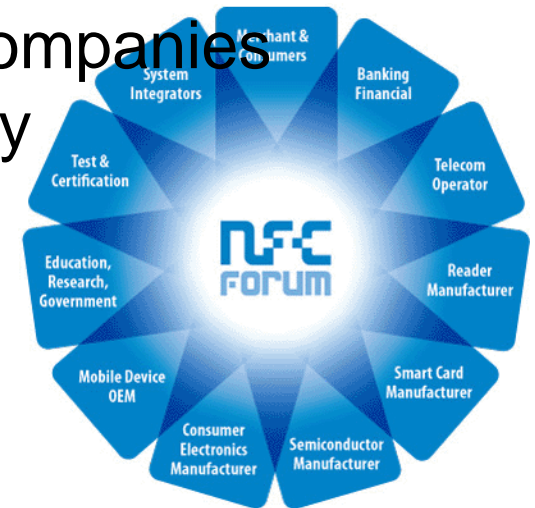
Certification Starts a Market Expansion Spiral

1. The certification program increases the addressable market
 - Makes global markets available to those who certify
 - Enables many market segments to leverage the same underlying technology
2. The increased addressable market attracts more investment
 - Larger more ambitious projects will now have a positive return on investment
 - New entrants will emerge, increasing competition and the quality of products.
3. New market segments and product categories will adopt NFC
 - More competitive products means wider adoption
 - More competitive products means greater innovation
4. Go to #2....



Certification Enables Alliances to be Built

- Reduces risk and investment associated with adopting a new technology from a new vendor
- Removes initial technical barriers, through certified compliance to a common set of standards.
- Organizations will be drawn to those companies with a similar standards-centric strategy
- Partners can focus resources on higher-level integration, functionality and meeting customer needs



Certification Program Objectives

- Deliver on the NFC brand promise of compliance to specifications and interoperability
- Build a process by which devices can be certified to comply with the Forum's open standards
- Promote interoperability between:
 - Certified devices
 - Certified devices and other products such as tags, etc.

December 2010 Launch

Questions

1. What does a device have to do in order to be certified?
2. What needs to be certified, how will it be certified, and how do we track devices through the process?
3. How and what will we test (or not test) for compliance to specifications and interoperability?

Solutions

Certification Policy defines program rules and processes

Device Requirements document defines minimum feature set

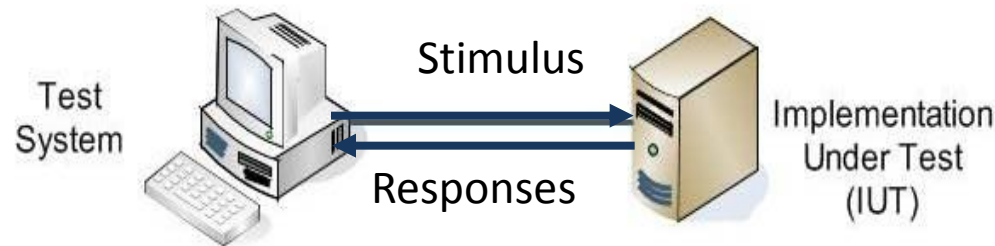
Conformance Testing confirms compliance to specifications

Plugfests help manufacturers test interoperability

<http://www.nfc-forum.org/certification/>

- Focus of Wave 1
 - “Self Confirm” that device complies with NFC Forum specifications, including but not limited to:
 - Digital Protocol
 - Activity
 - Tag Operation

- Submit Device for Certification Test
 - Conformance Test using NFC Forum-Approved test tool



Program Features

- Available only to NFC Forum members
- Administered by an independent, neutral third party
- Electronic, automated certification process
- Approved test tools
- Authorized test laboratories
- Problem and issue resolution process
- Escalation process
- Anonymity assured
- Option to list product on register of certified devices

NFC Forum N-Mark



N-Mark

- Consumer-facing mark
- Shows where to touch to trigger NFC activity

For Tags and Media

- For use TODAY on smart posters, cards, labels, etc. using NFC Forum tags
- No cost to use; free license, available to everyone

For Devices

- Devices that have passed certification may use this to designate the NFC touchpoint

A Certified Device



NFC Forum Certification Mark



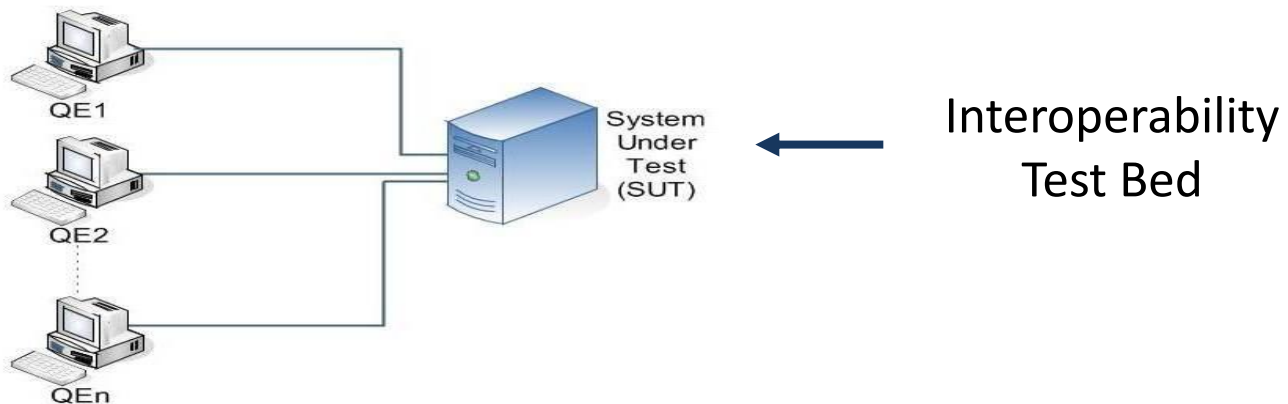
- Industry-facing mark
- Granted to products that complete NFC Forum certification
- Suggested use for supporting materials (warranties, etc.)
- Available only for NFC Forum members TODAY

NFC Forum Certification Mark

For Supporting Materials, Packaging, & Documentation

Interoperability Testing

- NFC Forum supports “Plugfest” events
 - Scheduled multiple times throughout the year
- Not required at this point
 - Strongly recommended
 - Could become mandatory in the future
- Certification will not be denied based on the results of interoperability testing



Certification Program Timetable

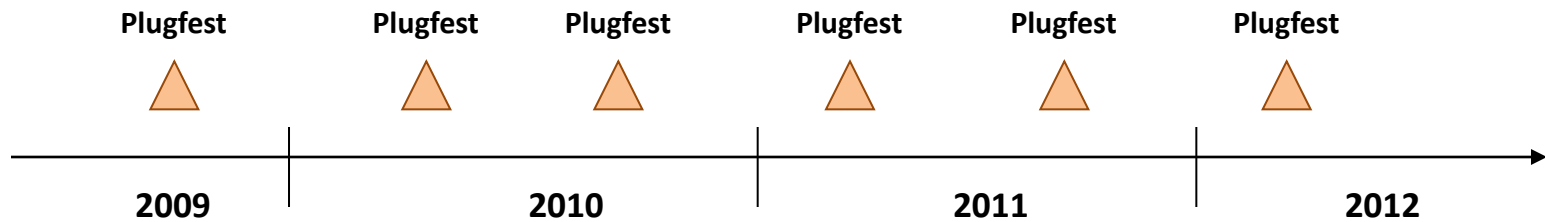
1st Certification Wave

Digital Protocol
Activity
Tag Operation



2nd Certification Wave (Advanced Certification)

1st Wave plus:
LLCP (Peer-to Peer)
RF Analog



Final Comments

- As a developer who is interested in getting your product certified, your first step should be to join the NFC Forum
- Good next steps would include:
 - Review the Device Requirements Document
 - Review the NFC Forum Certification Policy Document
 - Participate in Testing WG activities regarding Test Cases and Test Application SW
 - Talk to Test Tool Vendors (i.e., provide sample, familiarize yourself with tools, etc.), and/or talk to Test Houses (see web site for list)

Thank you!

Questions?