Bringing NFC to the browser with Web NFC API

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Flashback
NFC and the web: It’s happening

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Slides: http://goo.gl/33GqHa

March 21, 2014 / San Francisco

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Default branch

- **master**: Updated 4 years ago by Louis Yung-Chieh...

Stale branches

- **type4-conversation**: Updated 3 years ago by justinribeiro
Wild West of the Web, NFC Edition

Firefox still had an OS. Chrome had packaged applications with Native Client. NFC did work, but it could be better.
Then a funny thing happened.

Let the extensible web be all the api things.
Intent to Implement: Web NFC API

20 posts by 10 authors

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Spec
http://w3c.github.io/web-nfc/

Summary
The goal of the Web NFC API is to enable a set of Near Field Communication (NFC) functionality in the browser, which is useful for web payments.

Motivation
This feature gives developers the ability to access Near Field Communication (NFC) functionality of a device, such as reading and writing tags or other NFC devices. Example use cases can be found at [1].

Compatibility Risk:
This is a new API and has not been implemented in other browsers, therefore, there is no compatibility risk. The spec is being defined by Web NFC CG [2] and has undergone review by the W3C TAG, so few changes are expected during the implementation phase.
Progressive Web Apps
Generic Sensors API
// listen for tags
navigator.nfc.watch(_ => {
  for (let rec of _.data) {
    console.log(`${rec.data.id}: ${rec.data.title}`)
  }
},


url: document.baseURI,
recordType: 'json'
});

// Push a text record
navigator.nfc.push([[{
  url: message.url,
  data: [{
    recordType: "text",
    data: 'Hi Connection Summit!!'
  }]
}]]);
Users just want things to work.

App downloads and deployments are hard. The web offers the low friction with growing roots to fill use cases that were often reserved for the native app world.
Use Case: Inventory Tracking

Because no one wants to spend big budget on bar code scanners and RFID.
We still have a ways to go.

While the PWA story is coming to the big browsers, NFC and most of the connectivity we’re discussed is still only available in Chrome.
Not all supported (yet)

Type 1/2 are in Chrome behind flags now, but type 3/4 in specification not yet implemented.
## Experiments

**WARNING: EXPERIMENTAL FEATURES AHEAD!** By enabling these features, you could lose browser data or compromise your security or privacy. Enabled features apply to all users of this browser.

<table>
<thead>
<tr>
<th>Available</th>
<th>Unavailable</th>
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| **Experimental Web Platform features**  
Enables experimental Web Platform features that are in development.  
#enable-experimental-web-platform-features  
Enabled | **WebNFC**  
Enable WebNFC support. – Android  
#enable-webnfc  
Disabled |
Thank you!

Questions? Comments? Pitchforks? Tomatoes?