

Handoff from Eddystone to Web Bluetooth

Note: this is a public document.

User actions

Browser actions. See [draft spec changes](#)

Eddystone scanner actions

Web page actions

1. Scanner: Notices a nearby Eddystone beacon advertising URL <https://go.to/ar67n>, which redirects to <https://first.example.com/foobar>, which redirects to <https://second.example.com/baz>. Displays a notification of some sort.
2. User: Clicks notification.
3. Scanner: On Android, calls `startActivityForResult()` [Which Intent?] with a URL of <https://second.example.com/baz> and an `EXTRA_DEVICE` field identifying the picked device. "ForResult" lets Chrome call `getPackageInfo(getCallingPackage()).permissions` to check that the sender has permission to use Bluetooth.
 - a. Check with privacy/security whether we need to check the calling package's permissions. <https://developer.android.com/preview/features/runtime-permissions.html#normal> says the Bluetooth permission is 'Normal', so Android won't prompt for it.
 - b. Double-check with privacy/security that it's ok to use this intent from any application to grant an origin access to use a BT device. If not, we could whitelist particular beacon scanners.
4. Scanner: On iOS, widget populates a dictionary of parameters in the app-group NSUserDefaults, including a `BluetoothPeripheral=<CBPeripheral.identifier>` entry, then calls `[openUrl @"googlechrome-channel://app-group-command"]` (other browsers would use their own scheme. Chrome will have to handle by itself BT permission to communicate with BT device).
5. Scanner: If the scanner is part of the browser, we do the following as if that intent were sent, but we don't actually send it.
6. Browser: Adds the beacon to the URL's origin's [allowed devices list](#), with all services allowed.
 - a. This translates the beacon's MAC address to a [device instance](#) that's specific to the origin.
 - b. If a beacon advertises a URL that redirects, the final destination URL should be passed to the Browser so that it receives the bluetooth device.
7. Browser: `navigator.bluetooth.referringDevice` holds a `BluetoothDevice` for the Eddystone beacon.
8. Web Page: Uses `navigator.bluetooth.referringDevice`.