

WebBluetooth API draft

Firefox OS Bluetooth Team -

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WebBluetooth API

- Allow to turn on/off BT, discover remote devices, and pair/unpair to remote devices
“BEFORE CONNECTING”
- Use cases
 - Turn on/off BT
 - Discover remote devices
 - Pair/unpair to remote devices

Major Changes

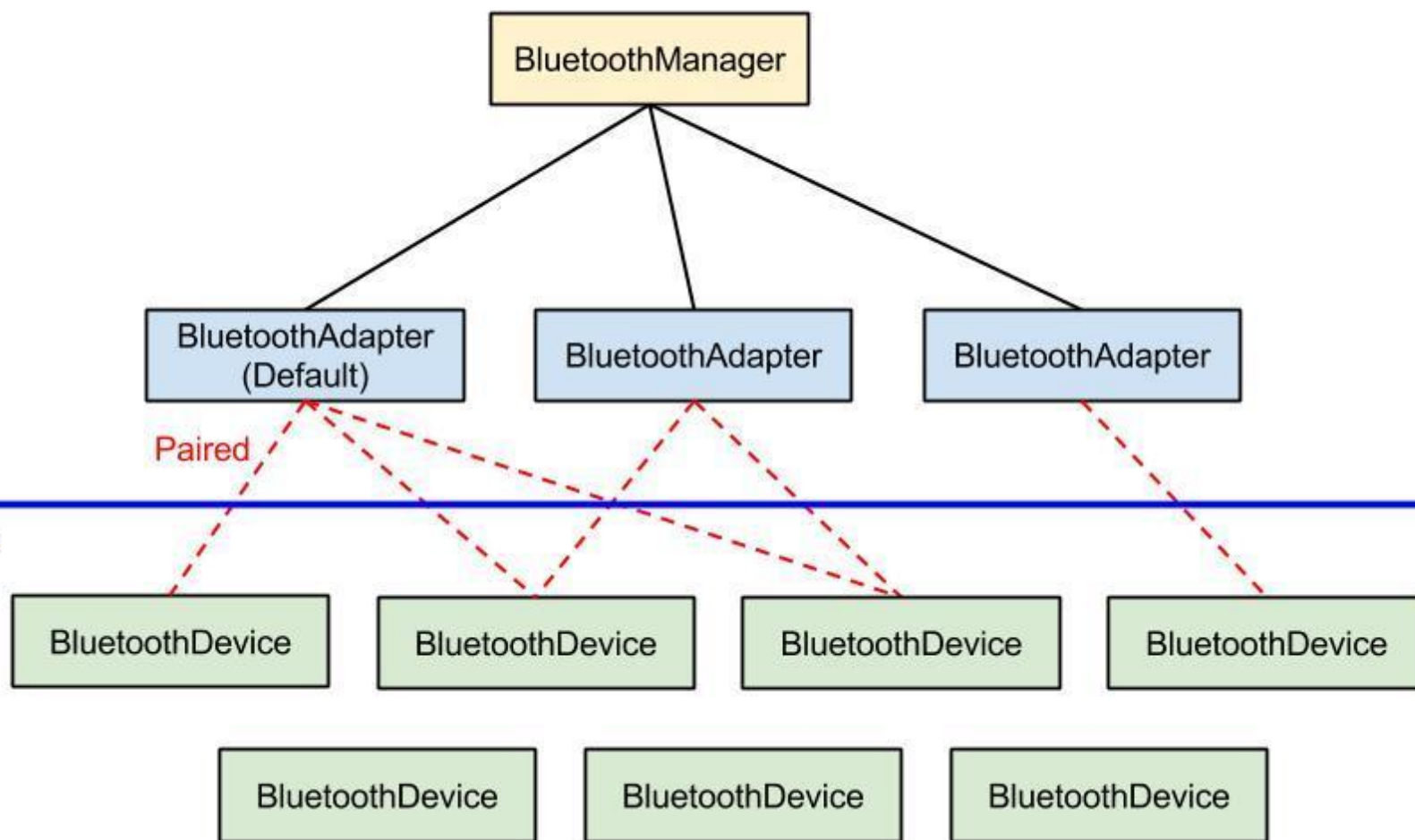
- Turn on/off BT
 - mozSettings => `BluetoothAdapter.enable()/disable()`
- Discover remote devices
 - *ondevicefound* event handler => `BluetoothDiscoveryHandle.ondevicefound`
- Pair to remote devices
 - System messages => `Event handlers`

Interfaces

3 Main Interfaces

- **BluetoothManager**
 - Manage the adapters
- **BluetoothAdapter**
 - Represent local device
- **BluetoothDevice**
 - Represent remote device

Ideal



Other Interfaces

- BluetoothClassOfDevice

- Define capabilities of remote device

- Events

- BluetoothAdapterEvent = (isDefault, BluetoothAdapter?, address?)
- BluetoothAttributeEvent = (attribute, value)
- BluetoothDeviceEvent = (BluetoothDevice?, address?)
- BluetoothPairingEvent = (BluetoothDevice, BluetoothPairingHandle)
 - BluetoothPairingHandle = (passkey?, setPasskey, setPairingConfirmation)

Interfaces:

BluetoothManager

<https://wiki.mozilla.org/B2G/Bluetooth/WebBluetooth-v2/BluetoothManager>

Interfaces:

BluetoothAdapter

<https://wiki.mozilla.org/B2G/Bluetooth/WebBluetooth-v2/BluetoothAdapter>

Interfaces:

BluetoothDevice

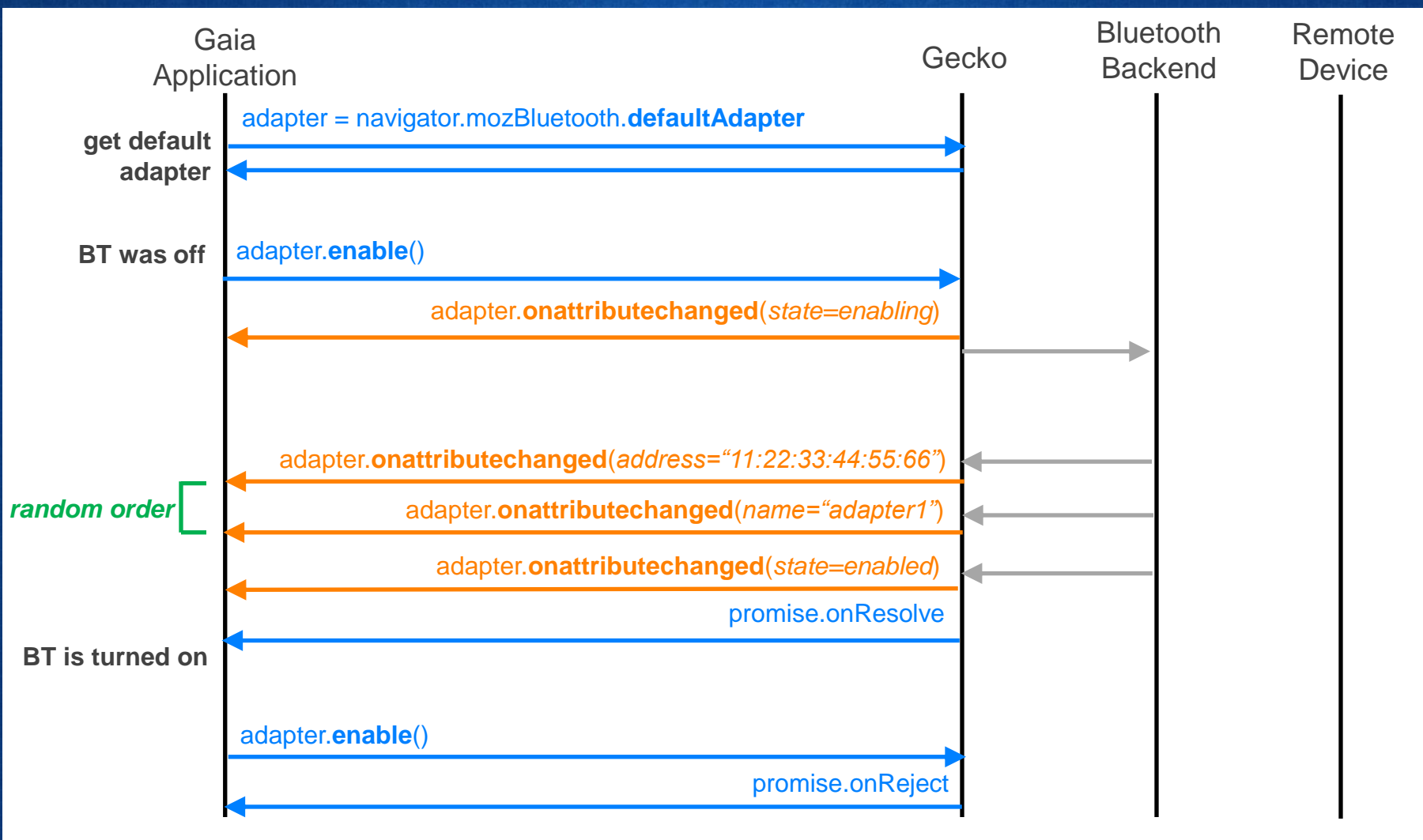
<https://wiki.mozilla.org/B2G/Bluetooth/WebBluetooth-v2/BluetoothDevice>

Use cases

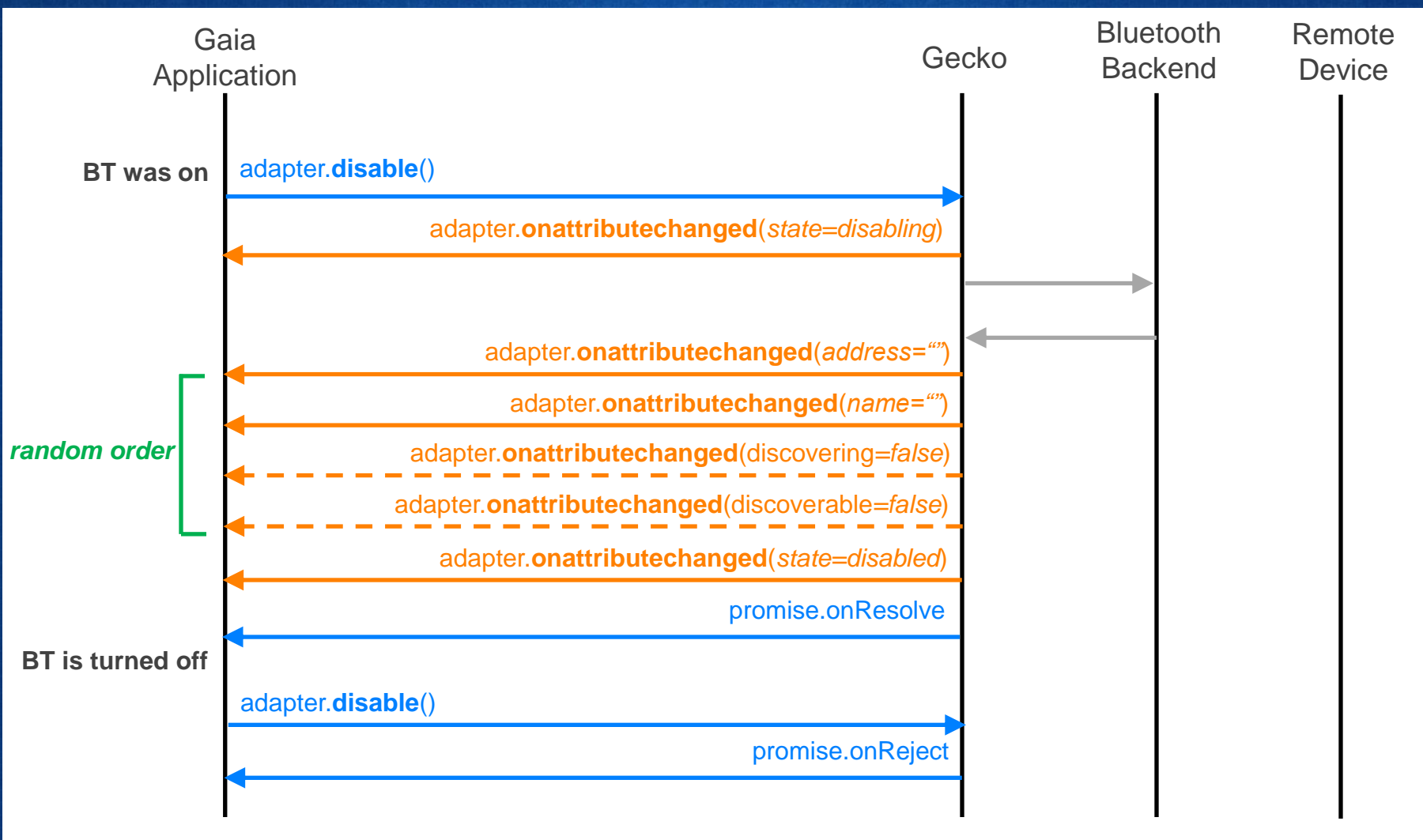
Use case:

Turn on/off BT

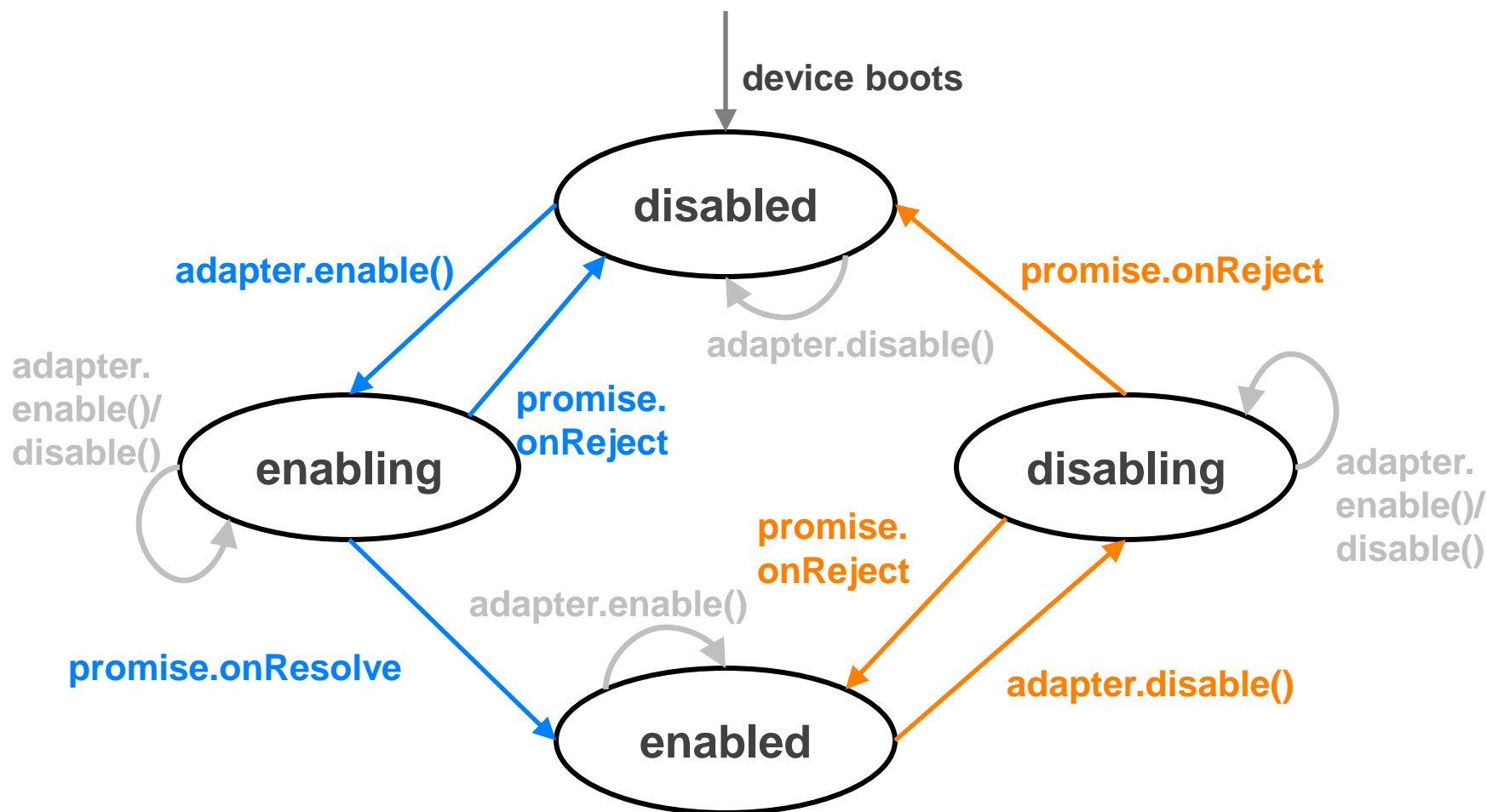
Turn on BT



Turn off BT



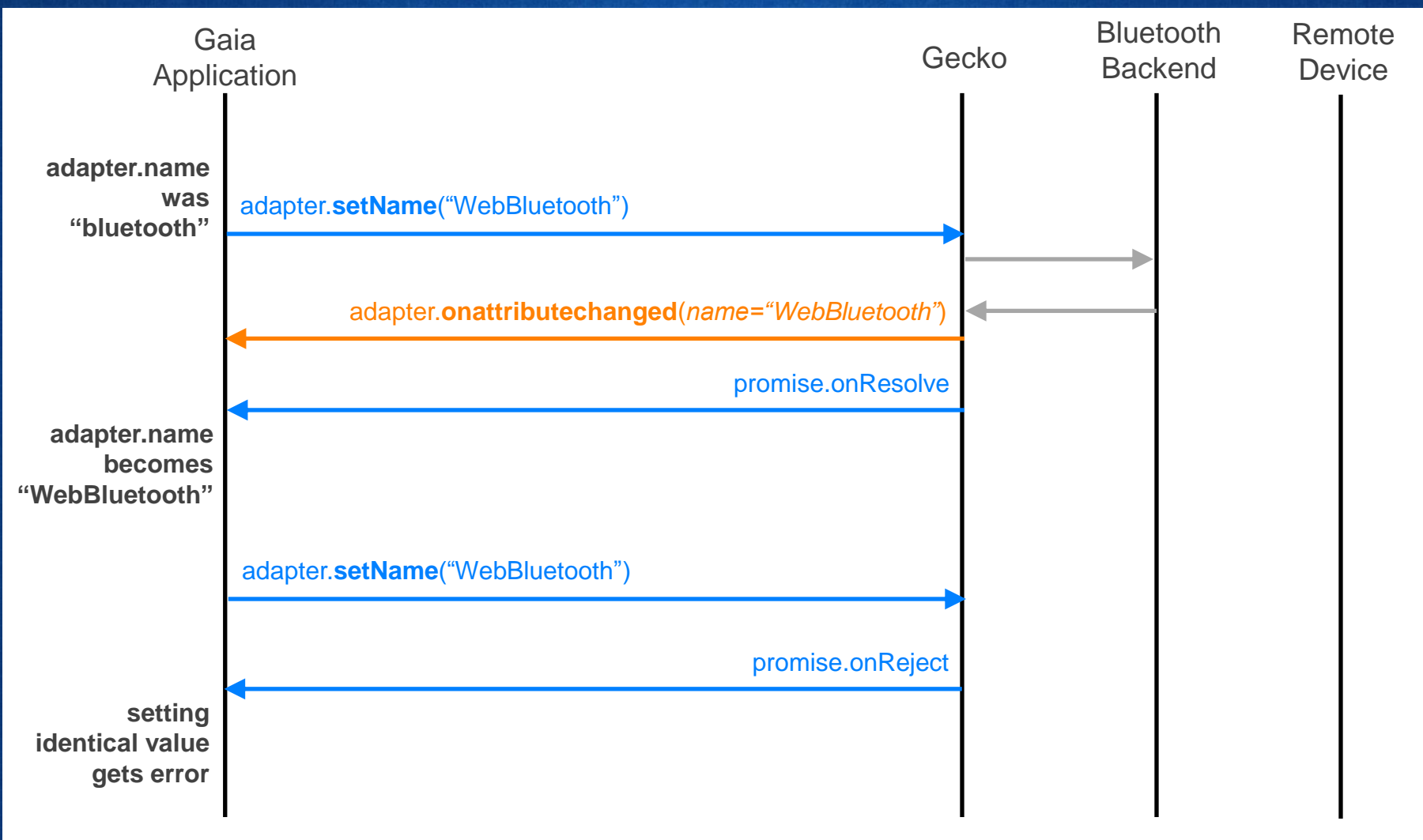
BluetoothAdapterState



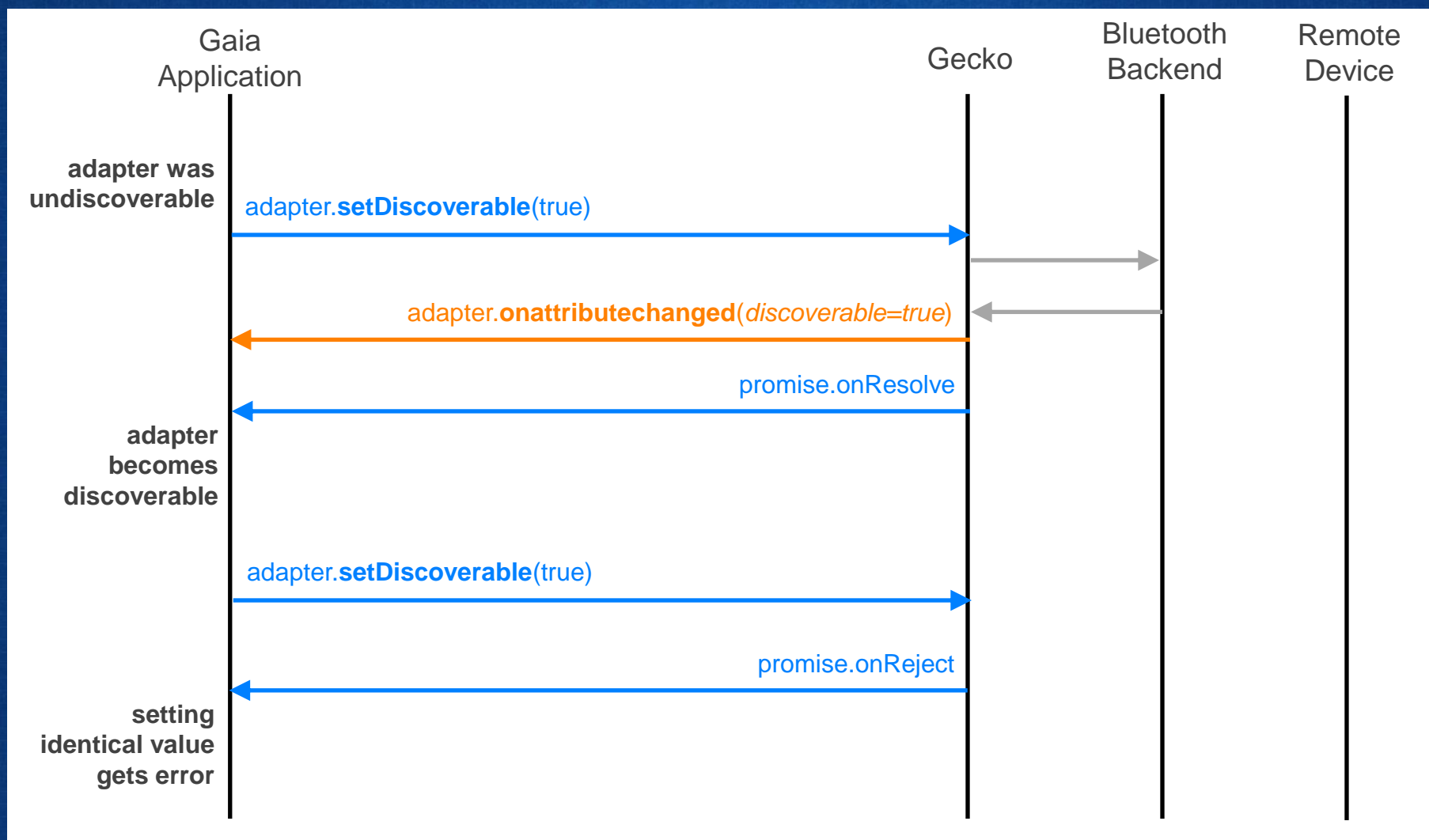
Use case:

Set properties

Set adapter name



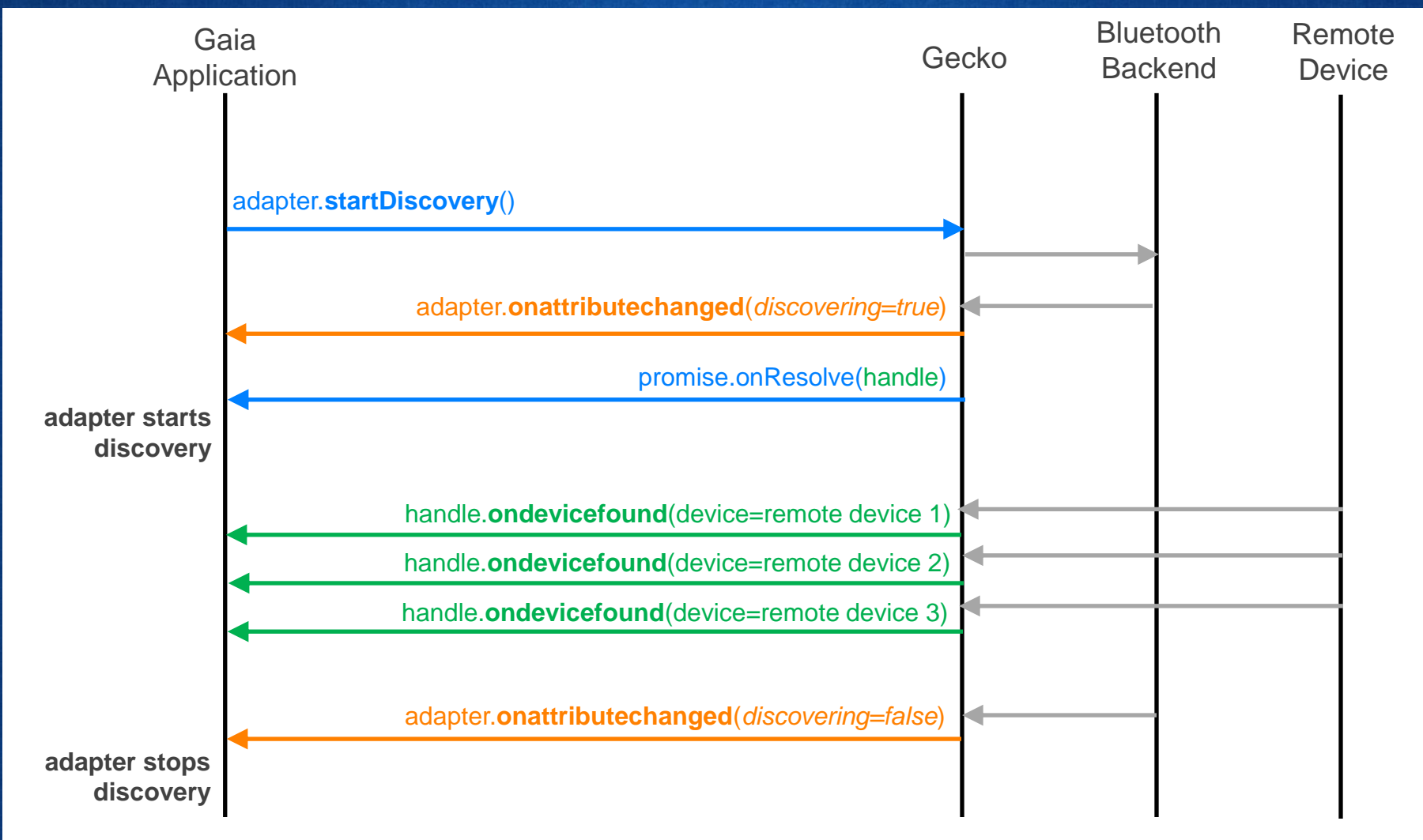
Set adapter discoverable



Use case:

Discover remote devices

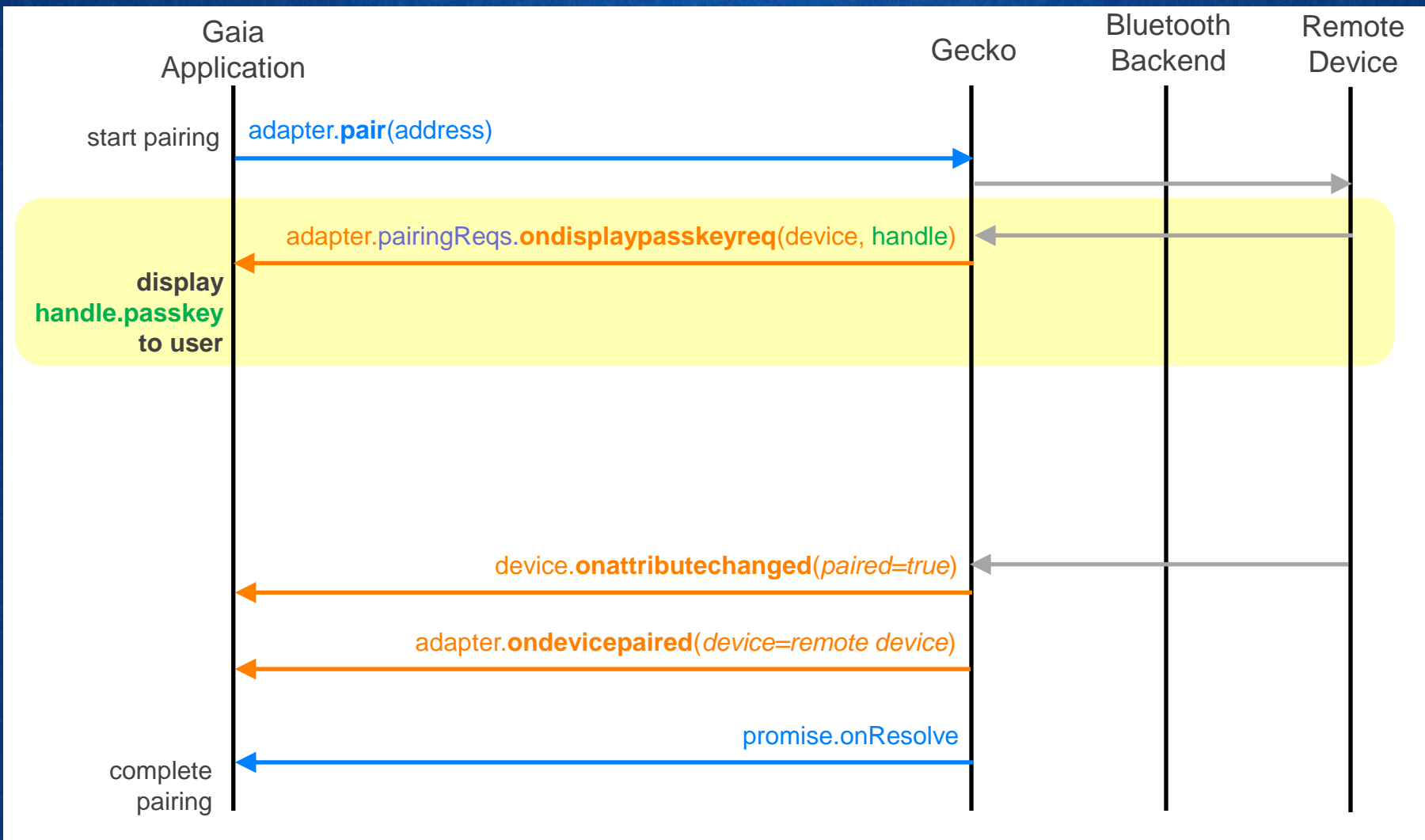
Discover remote devices



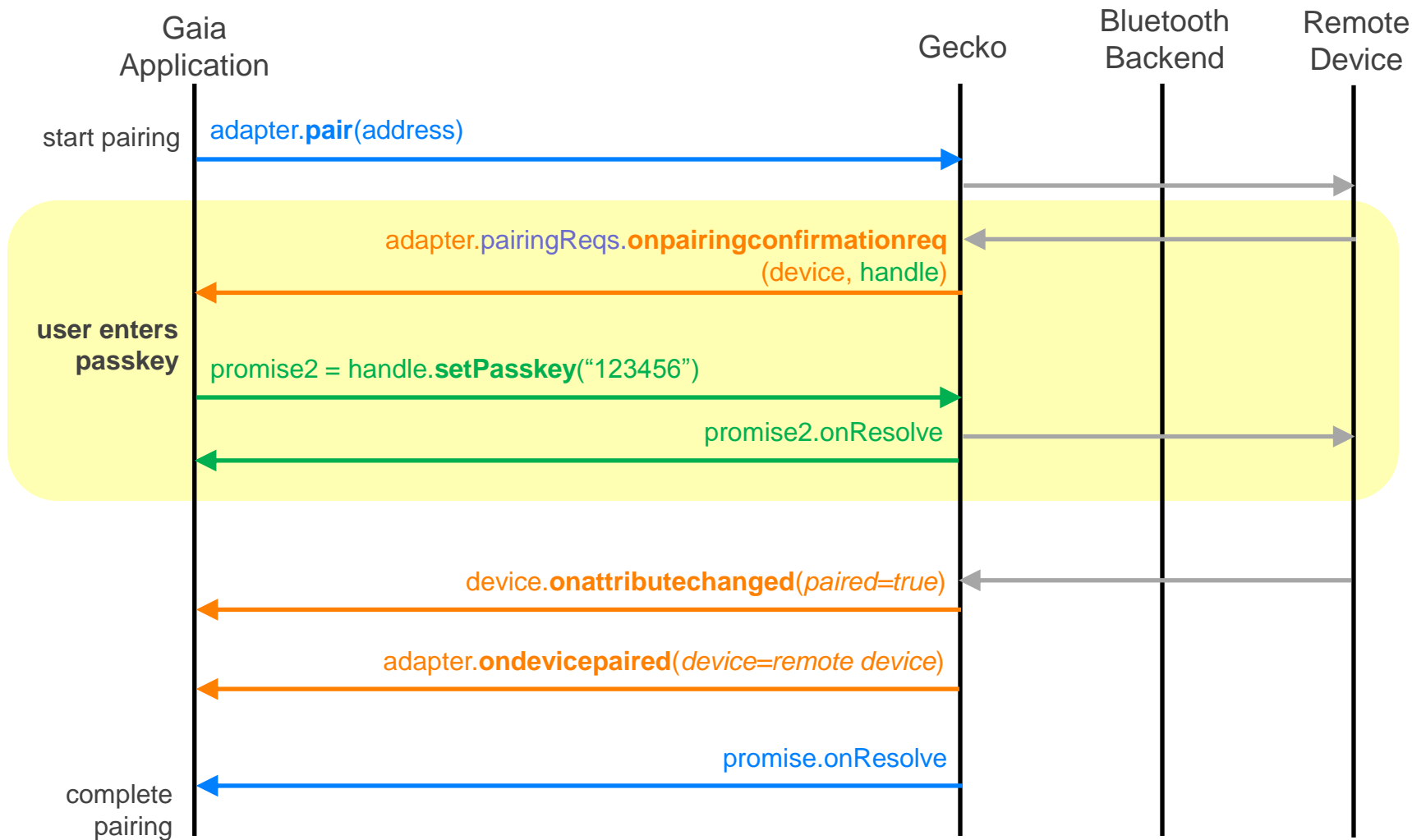
Use case:

Pair to remote devices

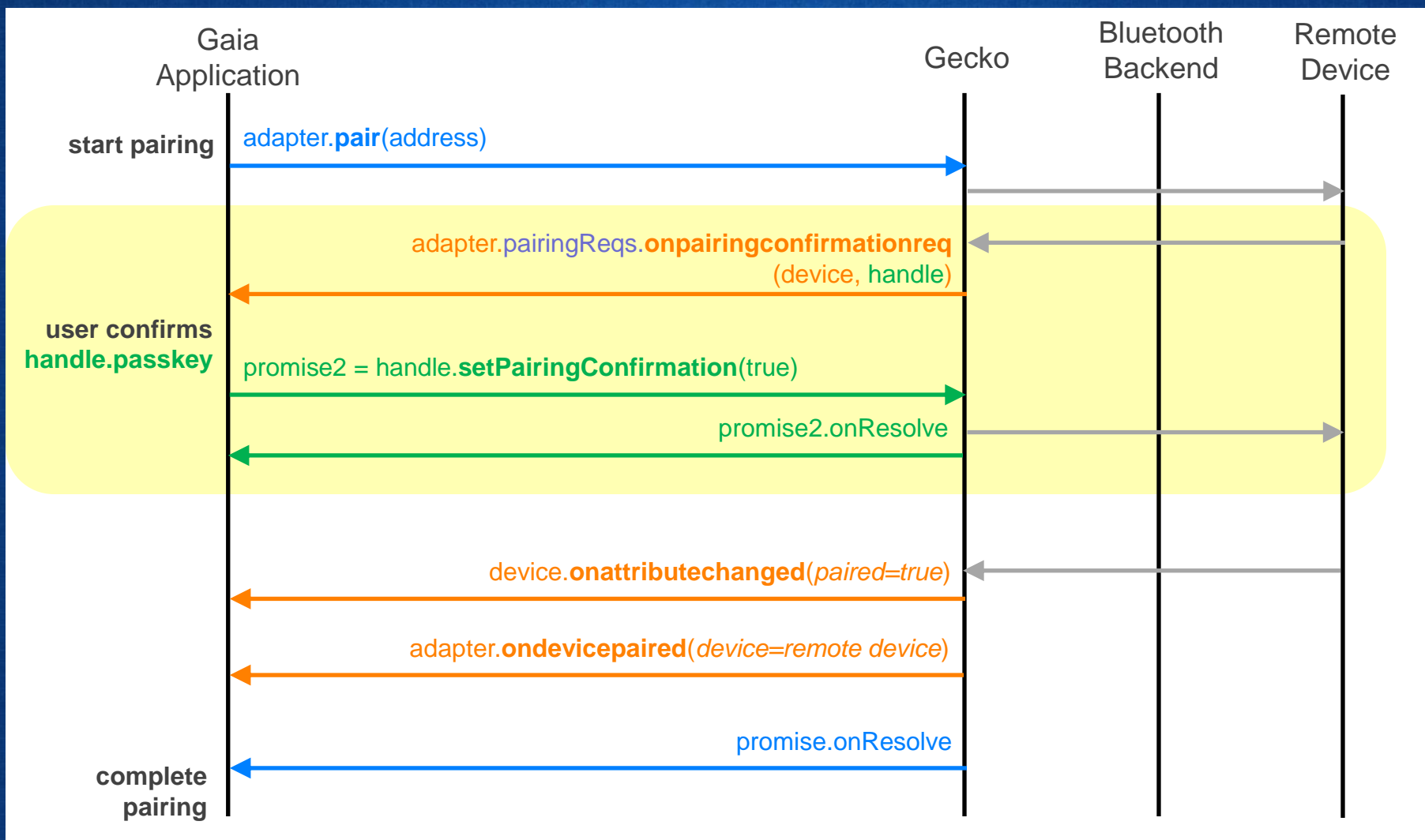
Pair – display passkey



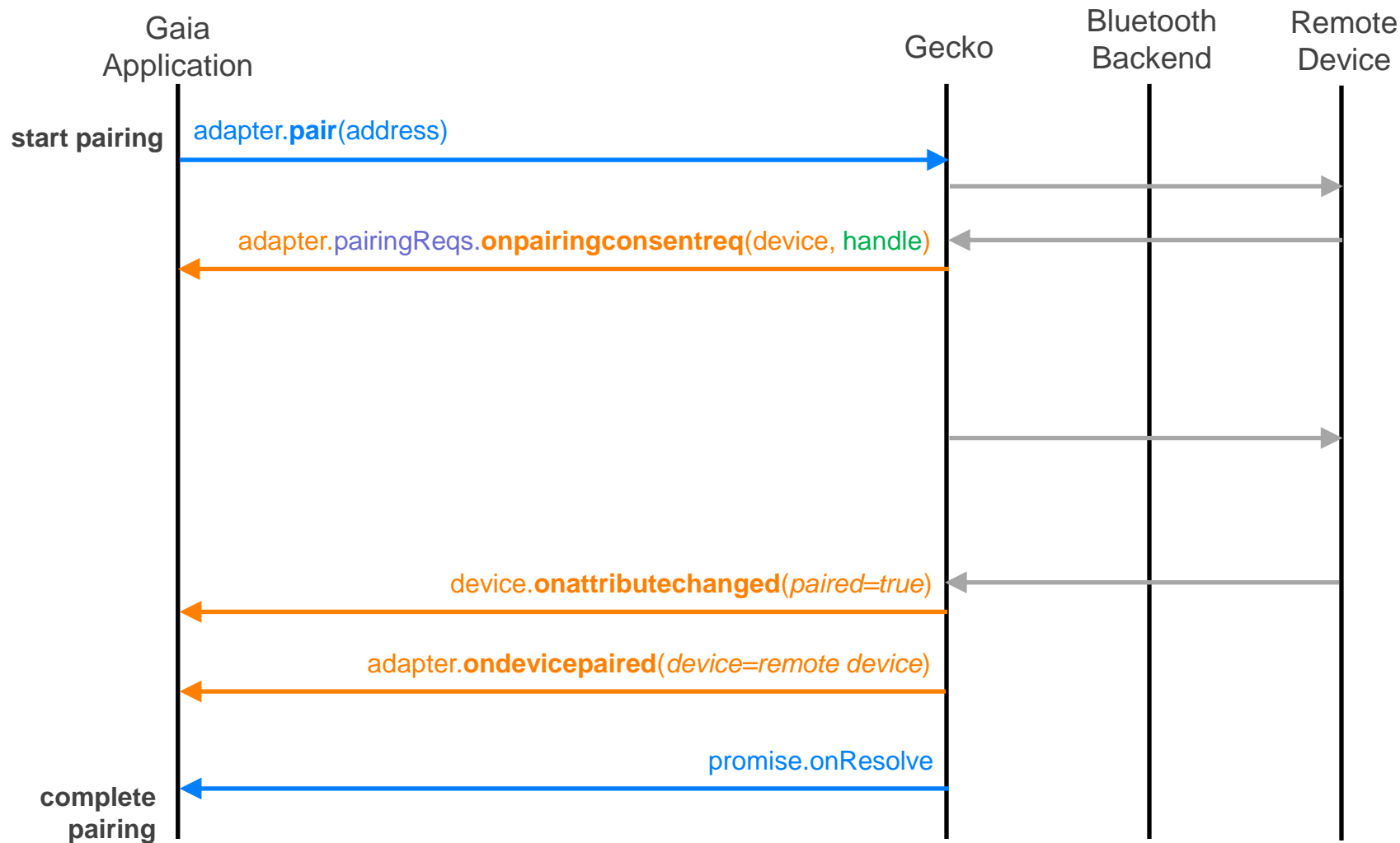
Pair – enter passkey



Pair - confirmation



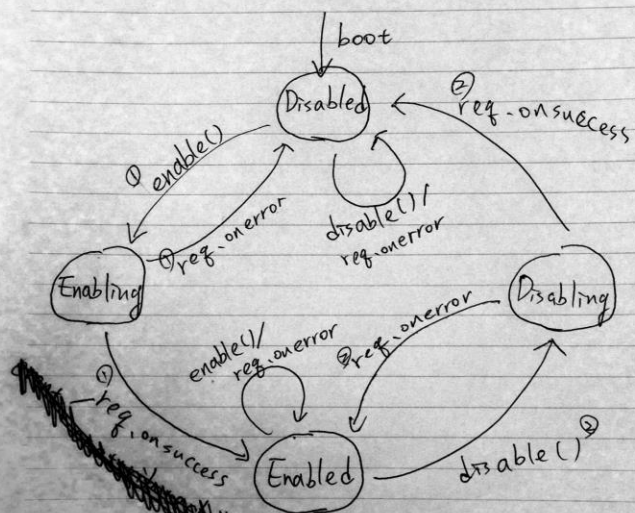
Pair – consent



Discussion

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
MON TUE WED THU FRI SAT SUN

Bluetooth ON/OFF. (From "state" perspective)



* event "attributechanged" would be fired up whenever a new state is reached.
In addition, it must be fired before reg.onsuccess in case [enabling -> enabled] and [disabling -> disabled].