# Extending an ENS to Support Wearable Devices

Typically deployed by a government health agency, an Exposure Notification System (ENS) leverages Bluetooth® technology embedded in smartphones to inform people when they have been in proximity to someone who was later diagnosed with COVID-19. By supporting wearables such as wristbands, an ENS can better address population groups that are critical to managing a pandemic but have low smartphone adoption, including young children attending primary school.
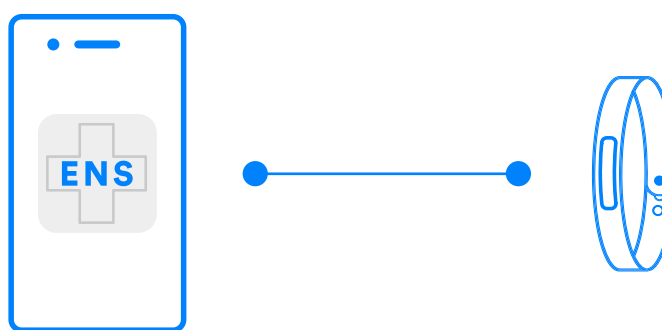

Sarah would like to know if her son Steve is exposed to someone infected with COVID-19 but Steve is too young to have a smartphone.

She acquires an ENS-enabled wristband for her son and pairs it with her smartphone using the ENS app. Steve's wristband begins broadcasting its own unique random IDs.

#9*9 ⟷ 1#3* ⟷ *21#
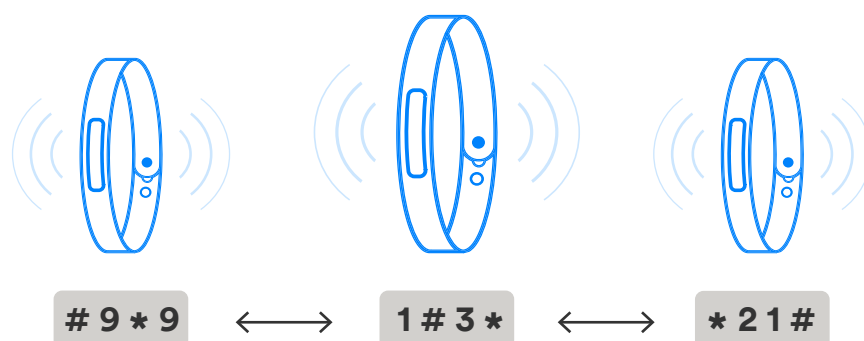
Steve wears his wristband throughout the day, and it exchanges random IDs with other nearby ENS-enabled devices, storing all received IDs.

#9*9
*21#
74*#
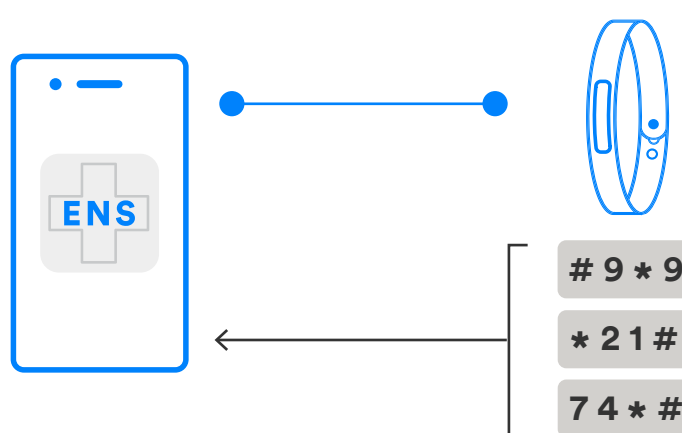
Steve's wristband periodically connects to Sarah's smartphone and uploads its list of recently received IDs.

#9*9   #06*
*21#   5*8#
74*#   #9*9
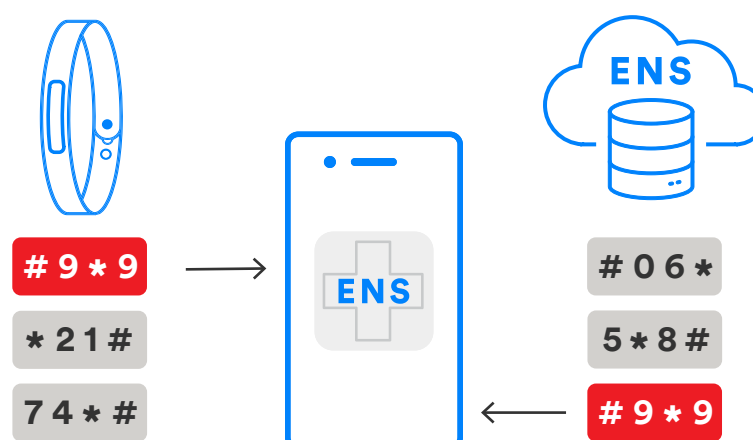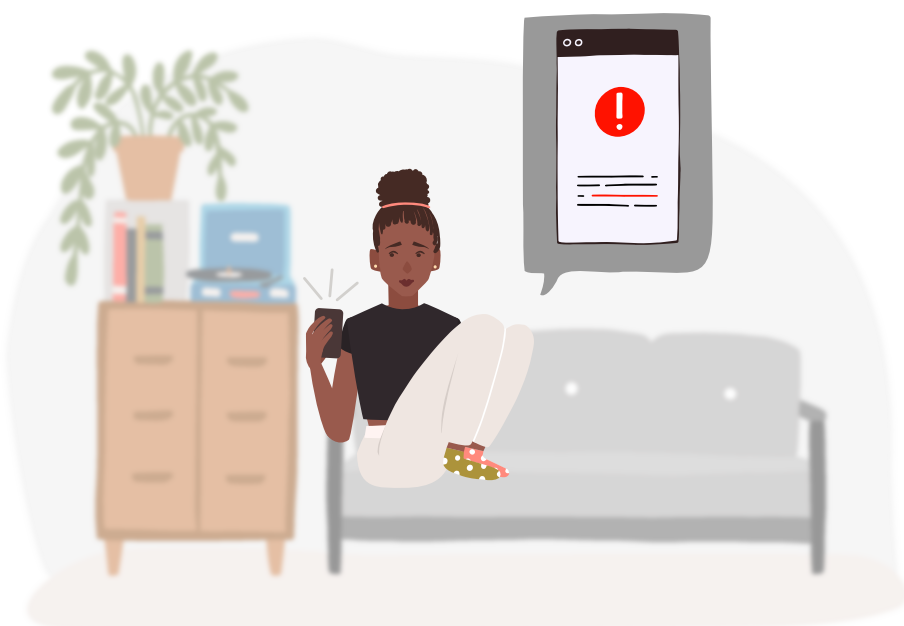
Sarah's smartphone periodically retrieves the list of IDs associated with positive COVID-19 cases and compares it to the list of received IDs from Steve's wristband. If the ENS app discovers any matches, it notifies Sarah with further instructions for Steve.

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