

# Blueprint: Rapid Deployment Hospital Virtual Communication

## Vision:

- Communities putting Virtual Communication Tools directly into the hands of front line nurses to help fight covid 19.

## End Use Visualization:

- [1 min Video](#)

## Setting & Need:

- Large numbers of Covid 19 infected patients need care and isolation within our hospital and improvised hospital settings
- Virtual communication tools can decrease the direct contact between patients and healthcare workers (HCWs) with the following benefits:
  - Decreased personal protective equipment (PPE) use
  - Decreased potential for infection spread
  - Decreased risk for healthcare workers
- Ensuring the security of patient data is paramount to providing safe healthcare and historically this required expensive hardware & custom software solutions that typically required months of planning to acquire and install.
- Advances in consumer grade electronics and open source cryptography software have made end to end secure encryption available for immediate use by the general public.
- With almost no modification these tools can be adapted to facilitate secure virtual video, voice and text between HCWs and patients in the hospital setting without significant disruption to the existing workflows used to care for patients.

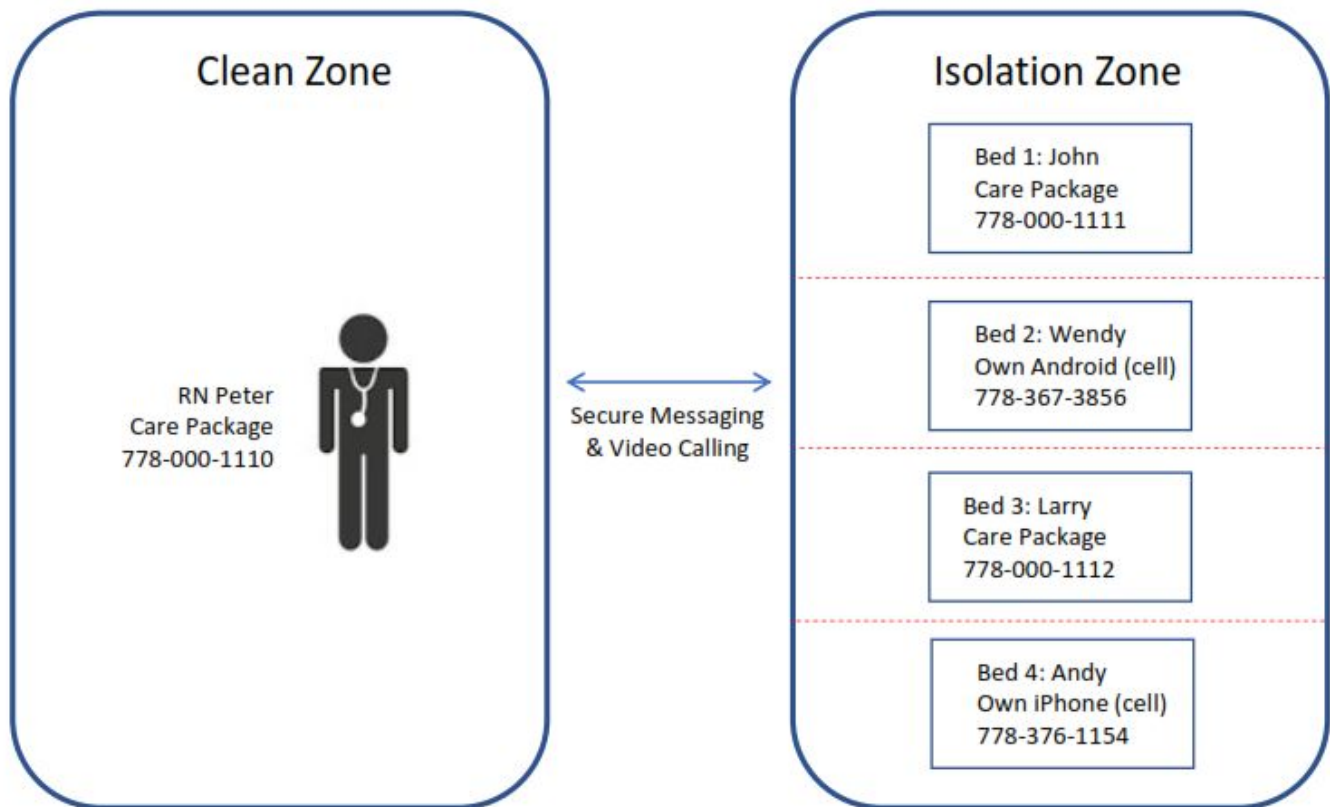
## “Virtual Health” Care Package:

- A padded envelope, covered with inspirational messages for our healthcare warriors, with everything one nurse needs to start communicating virtually with her isolation patients (<3min setup time):
  - Welcome & Quick start guide
  - One phone/tablet & stand for the nurse
  - Two phone/tablets & stands for patients
  - Instructions to allow patients to use their own phone/tablet
  - Quick reference care: Security & consent for virtual healthcare
  - Website community & resources for getting the most out of these tools

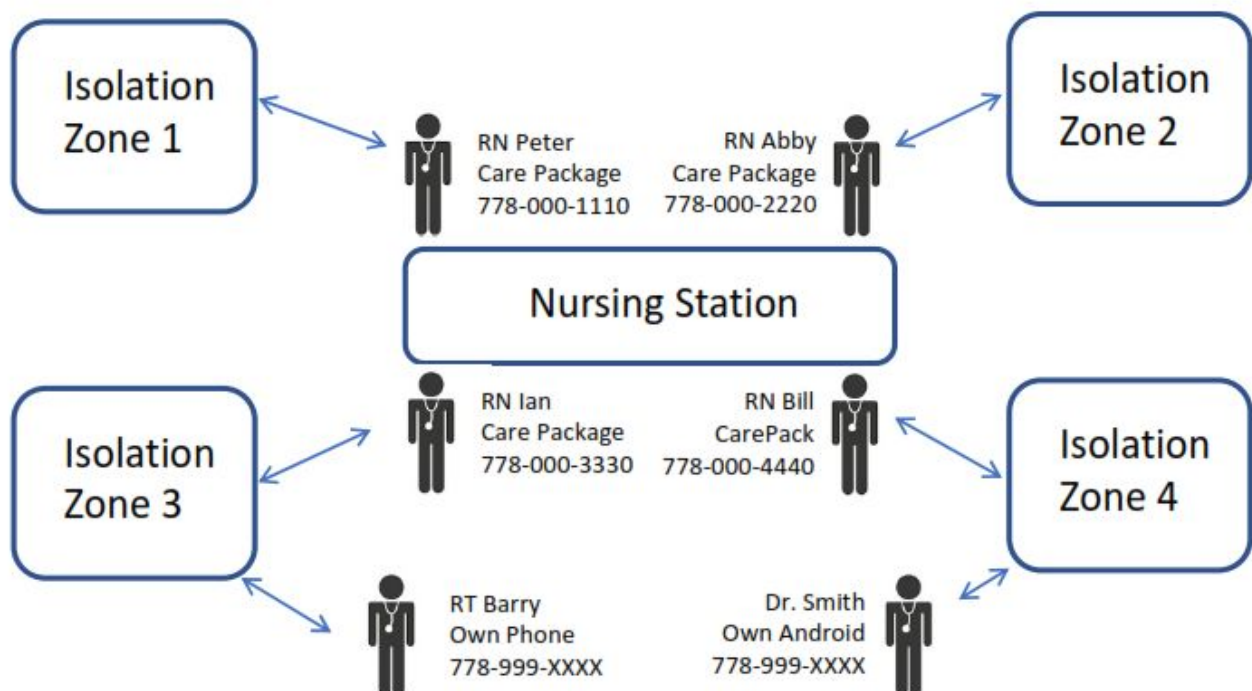
## Scalable:

- Each nurse immediately starts building the tools into their practice to decrease direct patient contact while improving the connection with patients who are scared and alone.
- Multiple packages can be deployed independently without the need for workflow modification.
- Once comfortable with the tools, super users will immerg and organically create workflow changes to improve patient care and utilize the tools more efficiently.

## Virtual Communication “Quick Start”



## Multiple Nodes & Providers



## Community Volunteers Building & Delivering the Care Packages:

- A pilot project has demonstrated the feasibility of individual or small communities:
  - Collecting new or used tablets/phones from the community
  - Cleaning them and installing Signal so they are ready for nurses
  - Ordering or 3D printing stands that meet hospital infection control standards

## System Components:

- Signal.org is a non-profit organization that provides an easily downloadable App that works on both Apple and Android devices. It facilitates secure 128 bit end to end encrypted Video, Talk & Text (very similar to Facebook's WhatsApp but without Facebook harvesting the data). Signal and it's CEO has gotten behind this project and provided the means to connect HCWs to the network without revealing their personal phone numbers and to connect non-cellular devices (ie cheap tablets) to the network.
- Front line nurses will be provided with devices
- Each patient would either bring their own device and download signal or be provided with a device.
- Each HCW (doctors & others) would either bring their device, download Signal and be provided with an anonymous Signal ID or would be provided with a device.