

Research - Seeding Guideline

1) Documentation

- a) Document the following specific information about each device being seeded (if applicable)
 - i) Serial Number
 - ii) Model
 - iii) FCCID
 - iv) MAC Address (Wi-Fi, Ethernet, Bluetooth, Zigbee, etc.)
 - v) Revision number and or build date
 - vi) Photographs of the device, showing any labels or identification numbers
 - vii) Current Firmware version AND Firmware version updated to (if required)
 - viii) Network connections attached to (SSIDs, Bluetooth Connections, Zigbee, etc.)
 - ix) Paired device information
 - (1) Application(s) used to interface with device and version numbers
 - (2) Operating System and version number
 - (3) Serial Number
 - (4) Model
 - (5) FCCID
 - (6) MAC Address (Wi-Fi, Ethernet, Bluetooth, Zigbee, etc. Typically, available through an NMAP scan.)
- b) Record all usernames (many devices will require social media accounts; however, personal data and/or accounts should not be used), email addresses, and passwords associated with the setup/initialization of the device, including accounts associated with any paired devices (e.g., Apple ID for iOS device, Google account for Android devices, etc.)
- c) Record timestamps of initialization processes, connections via network, and other user generated events

2) Setup and Initialization

- a) Set up a dedicated router that your device will be paired to (make sure that this router will only be used for devices being seeded and any other external devices that will be used to interact with the device being seeded)
- b) Follow instructions for standard setup using product guide, making sure to document any of the above during the process.
- c) If applicable, or if the tools and training are available to you, attempt to capture network traffic using tools such as Wireshark to capture traffic during setup (this can be of Wi-Fi, Ethernet, Bluetooth, or any other communication protocol used by the device)
- d) Familiarize yourself with common features used by the device. This will help you to formulate a plan on what types of events you will attempt to record or document while the device is being seeded with data. Remember to document timestamps of when these features are used during the seeding process.
- e) Create a plan for which device features will be used, how they will be used (e.g., motion activation of a doorbell camera VS. pushing to doorbell button to generate an event).
 - i) Attempt to cover as many scenarios as possible for the functions and features of the device. The more scenarios captured, the richer the dataset for understanding the differences between the data recorded during these scenarios.

- f) Execute above plan while recording timestamps and specifics of how each event is triggered
- 3) URLs, etc. of existing research

Device

Manufacturer	
Model Name	
Model Number / Part Number	
Serial Number	
FCCID	
IC (Canadian)	
MAC Address (Wi-Fi, Bluetooth, and additional)	
Revision Number	
Build Date	
Firmware Version	
Category, choose from camera, drone, television, fitness/health, home (lighting, doorbell, thermostat, refrigerator, vacuum, alarms), other entertainment (music, VR headset)	

User Data

Username(s)	
Email Address	
Passwords	
Network Connections (SSID Names)	
Timeline / Timestamps	
All Paired Device Information	
Location device was seeded. i.e., GPS coordinates of use as well as larger GPS boundary points	
Any additional applications installed and used with above noted username(s)	