Table 6. List of Portable/Private Items

|  |  |
| --- | --- |
| Device | Entities |
| Digital Camera | Images  Videos  Storage (SD Card) |
| Smartphone | Text Messages  Call Logs  Application  SNS accounts  GPS  Wi-Fi Access  Bluetooth  NFC |
| IPad | Same as smartphone |
| Credit Card | Credit Card Record |
| Smartwatch | Similar to smartphone |
| Laptop | Internet Search History  Storage (HDD, SSD)  SNS accounts |
| External Hard Disk | All kinds of digital files |
| Drone | Videos |
| USB Memory | All kinds of digital files |
| SD Card | All kinds of digital files |
| Blackbox | Videos |
| HiPass | Through Time |

Table 7. List of Stationary/Private Items

|  |  |
| --- | --- |
| Device | Entities |
| Subject’s Home | |
| Personal Computer | Internet Search History  Storage (HDD, SSD) |
| Game Console | Images  Videos  Documents  Operation Log |
| Robotic Vacuum Cleaner | Operation Time |
| Internet of Things [11] | Every type of digital file |
| Embedded System [12] | Every type of digital file |
| Smart TV [13] | Application  Web Browsing  Images and Multimedia Files  External Media (USB, Flash drive, etc.)  Cloud Service  E-mail |
| Internet Modem | Access Record |
| Subject’s Office | |
| Office Desktop | Internet Search History  Storage (HDD, SSD) |
|  |  |
|  |  |
|  |  |

Table 8. List of Stationary/Public Items

|  |  |
| --- | --- |
| Device | Entities |
| Subject’s Office | |
| Network Switch / Router | Access Records |
| Server | Access Records |
| Surveillance Camera | Videos |
| RFID Reader | Access Records |
| Digital Printer | Usage History |
| VoIP PBX System | Access Records |
| At Outside | |
| CCTV | Videos |
| Toll Gate | Through Time |
| ATM | Credit Card Records |
| Wi-Fi | Access Records |
| Network Switch / Router | Access Records |
| Access Point (AP) | Position Information |
| Card Reader Slot | Credit Card Records |
| Ticket Office | Ticket Issue Records |
| Immigration Office (Airport / Harbor) | Immigration Records |

Table 9. List of Virtual Entities

|  |  |
| --- | --- |
| Device | Entities |
| Cloud Service | Every type of digital file  Access Records |
| Music Streaming | Usage Time |
| Video Streaming | Viewing Time |
| E-Commerce | Purchase Records |
| SNS | Timeline  Access Log |

Table 10. List divided into data type (Except storage device)

|  |  |
| --- | --- |
| Data type | Device |
| Text | Smartphone  Desktop / Laptop |
| Image | Smartphone  Digital Camera  Desktop / Laptop  Game Console |
| Video | Smartphone  Digital Camera  Desktop / Laptop  Drone  CCTV  Blackbox  Game Console |
| Sensor Data | Smartphone  RFID  GPS  Airport Immigration  Network Device  Wi-Fi |

1. Personal Entities
   1. Portable Entities
      1. Entities that can be identified on subject’s body and/or personal belongings
         1. Mobile phone
         2. Laptop computer
         3. Tablet
         4. Digital camera
         5. Smartwatch
         6. Physical activity tracker
         7. Removable media

1.1.1.7.1 External Hard Disk

1.1.1.7.2 USB Memory

1.1.1.7.3 SD Card

* + - 1. Transportation payment card (T-money)
      2. Credit card(s) and bank card(s)
      3. Electronic entrance card(s)
    1. Entities that can be identified on subject’s vehicle(s)
       1. Embedded system of the vehicle(s)
       2. Blackbox
       3. Toll road payment system (HiPass)
       4. Navigator (GPS)
       5. All entities listed in 1.1.1
  1. Stationary Entities
     1. Entities that can be identified at subject’s residential location
        1. Personal computer
        2. Game console
        3. Smart TV
        4. Security cameras (e.g. webcam, CCTV)
        5. All entities listed in 1.1.1
     2. Entities that can be identified at subject’s working location
        1. Office Desktop
        2. Security cameras (e.g. webcam, CCTV)
        3. All entities listed in 1.1.1

1. Public Entities

2.1 Subject’s residential location

2.1.1 CCTV cameras in public area

2.1.2 Electronic entrance record

2.1.3 Parking lot entrance record

2.2 Subject’s working location

2.1.1 Wireless network switch / router log

2.1.2 CCTV Cameras

2.1.3 Electronic entrance record

2.3 Other locations subject visited

2.1.1 Wireless network switch / router log

2.1.2 CCTV Cameras

2.1.3 Electronic entrance record

1. Virtual Entities
   1. Cloud drives
   2. Email accounts
   3. SNS

<https://www.ncjrs.gov/pdffiles1/nij/199408.pdf>

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