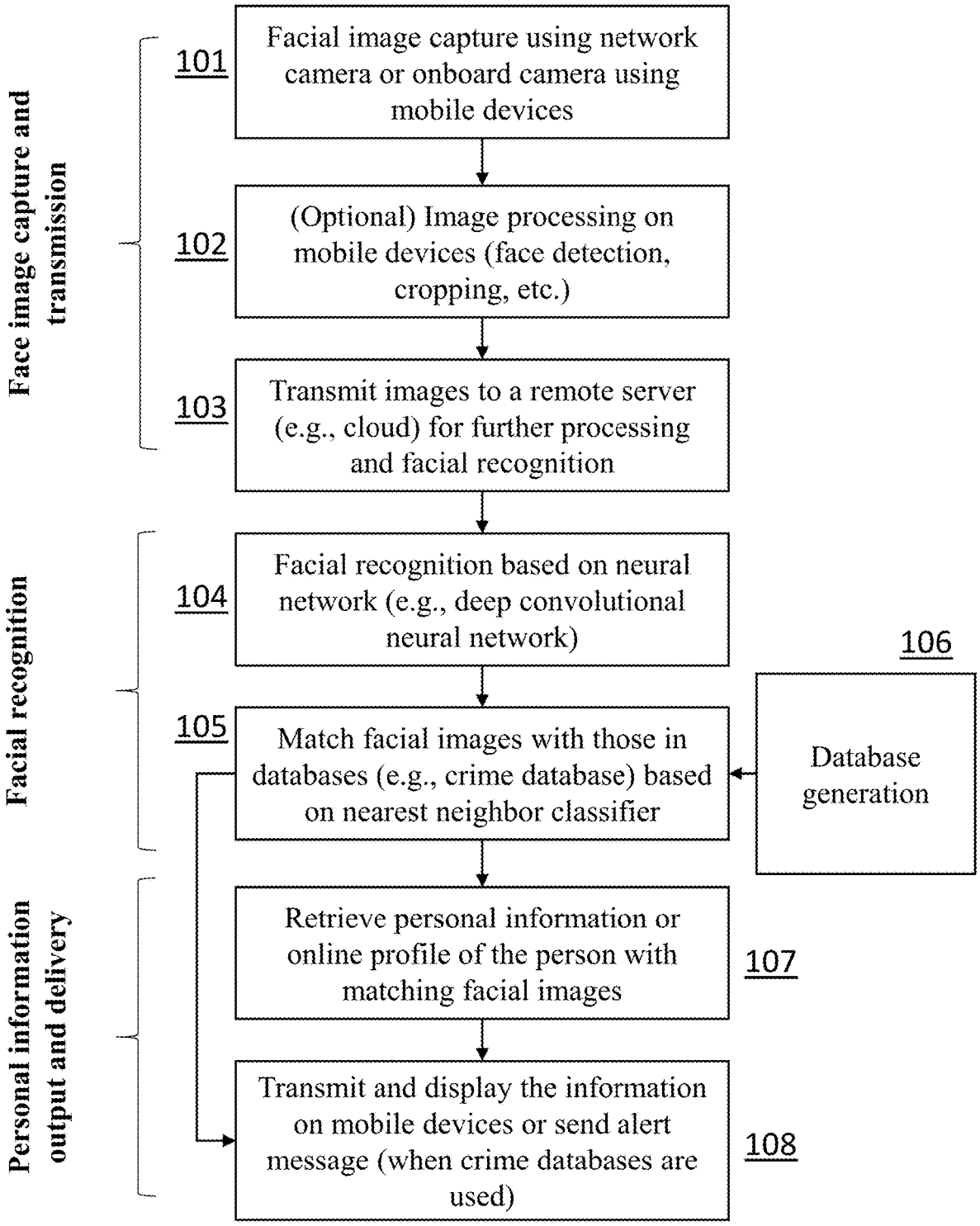
Face image capture and transmission
101
Facial image capture using network camera or onboard camera using mobile devices
102
(Optional) Image processing on mobile devices (face detection, cropping, etc.)
103
Transmit images to a remote server (e.g., cloud) for further processing and facial recognition
Facial recognition
104
Facial recognition based on neural network (e.g., deep convolutional neural network)
105
Match facial images with those in databases (e.g., crime database) based on nearest neighbor classifier
106
Database generation
Personal information output and delivery
Retrieve personal information or online profile of the person with matching facial images
107
Transmit and display the information on mobile devices or send alert message (when crime databases are used)
108

FIG. 1