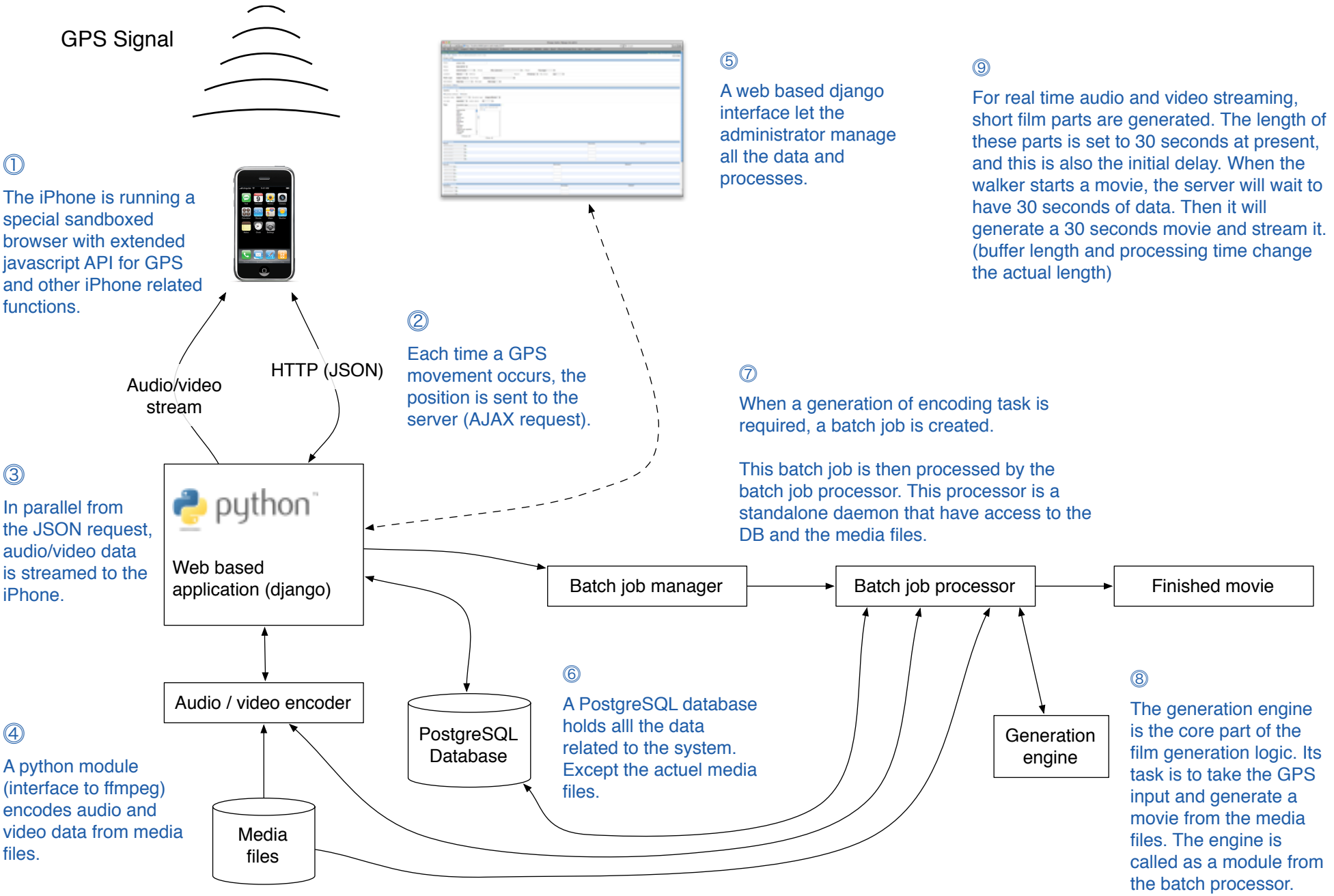
GPS Signal
①
The iPhone is running a special sandboxed browser with extended javascript API for GPS and other iPhone related functions.
Audio/video stream
HTTP (JSON)
②
Each time a GPS movement occurs, the position is sent to the server (AJAX request).
⑤
A web based django interface let the administrator manage all the data and processes.
⑨
For real time audio and video streaming, short film parts are generated. The length of these parts is set to 30 seconds at present, and this is also the initial delay. When the walker starts a movie, the server will wait to have 30 seconds of data. Then it will generate a 30 seconds movie and stream it. (buffer length and processing time change the actual length)
⑦
When a generation of encoding task is required, a batch job is created.
This batch job is then processed by the batch job processor. This processor is a standalone daemon that have access to the DB and the media files.
③
In parallel from the JSON request, audio/video data is streamed to the iPhone.
python
Web based application (django)
Batch job manager
Batch job processor
Finished movie
Audio / video encoder
PostgreSQL Database
⑥
A PostgreSQL database holds alll the data related to the system. Except the actuel media files.
Generation engine
⑧
The generation engine is the core part of the film generation logic. Its task is to take the GPS input and generate a movie from the media files. The engine is called as a module from the batch processor.
④
A python module (interface to ffmpeg) encodes audio and video data from media files.
Media files