Mobile Security Solution on Cloud

Project #8

Team #31
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Abstract

Fueled by the widespread adoption of mobile devices and the explosion of mobile applications, mobile device security has become a critical issue. Therefore, in this project, we plan to design a Cloud Framework that allows mobile phones to post images on a regular basis and also retrieve the images to the end user with minimal delay. We will also provide a web interface for the easy filtering of the images. The project uses a mobile device, a cheaper alternative for CCTV camera to capture images.

Specifications

The specifications of the project are as follows:

- ➢ Android Application: This android application will automatically capture and upload photos periodically to the cloud. These photos will be stored in the cloud based on session id's and device id's, so that these can be queried later by the device owner.
- ➢ Web Application: This will be a front end application which allows the security administrator to view images stored in cloud. The users will be able to view pictures uploaded from their registered devices, in a gallery form. Several filters such as start date of session, end date of session, device name and device location will be provided, which will allow the user to query his uploaded pictures.
- ➢ REST API's: These REST API's will provide back end services and will be responsible for accepting requests from both the web application and the android application. These will be responsible for all major tasks such as:
  - ○ Login to a device using Web application: User can log in to the web application and view the uploaded pictures. The login information itself will be stored in a cloud based relational database.
  - ○ Signing up for a new device: User can register a new device on the web application. These will be again stored in a cloud based relational database.
  - ○ Session Management for devices.
  - ○ Uploading the images: This will upload the images to the cloud.
  - ○ Unique users List.

➢ Cloud Services: We need to have a optimized database for storing images on cloud, which is able to process queries as well as uploads fast. We need to set up a server for our web application, and also a relational database in cloud.